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ABSTRACT

This study examines the status of information literacy skills among the faculty of Adirondack Community College (ACC) in New York, and describes factors that enhance these skills. Three primary questions posed by the study are: (1) what information literacy skills do faculty have now?; (2) what factors strengthen the teaching of information literacy, and what would motivate faculty to learn more?; and (3) how can this case study be used to teach information skills more effectively to faculty and staff? It was found that faculty access information by different means than students, in that they bypass traditional library tools and use their professional organizations and colleagues as major sources of information. Using literature and information from librarians, the study summarizes ACC faculty as being typical of college faculty overall in their lack of awareness of information skills. The paper is divided into 4 chapters, including an introduction, a review of the literature, results of the study, and a discussion of the results. Appended are cover letters and survey instruments, aggregate raw survey results, and supporting documentation. (Contains 27 references.) (AS)

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ED 424 887

Factors Enhancing the Teaching of Information Literacy to Adirondack Community College Faculty

By

Joyce Miller

A project presented
to the faculty of the State University of New York at Plattsburgh
in partial fulfillment of the requirements
for the degree of Master of Arts in Liberal Studies
with a concentration in Administration and Leadership

Dr. Kevin O'Neill

MLS590

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Chapter 1 Introduction:

Purpose of the Study:

Finding exactly what one needs in a torrent of information is an ability many people do not yet have. To be successful and stay competitive in one's career and life relies on one's ability to find information, learn updated job skills and stay current in one's field of knowledge. Knowing how to find and evaluate information is an essential life skill for success in one's education, career and life, I believe.

That skill is increasingly important because information grows exponentially, a rate challenging our current abilities to manage and use information appropriately and effectively. The explosion in numbers of World Wide Web sites demonstrates how information is growing in just one medium in recent years.

This skill is **information literacy**. It is defined as:

- knowing **when** information is needed,
- knowing **how** to find information,
- **evaluating** the information using critical thinking skills and then
- **using** the information appropriately.

An increasing number of libraries, universities and library organizations have focused on promoting information literacy in the last few years. Enlightened educators now include information literacy skills along with competencies in science, math, reading and writing as requirements for an educated adult.

I see information literacy as the one key to all other skills: when one knows how to find things out, one can learn anything. I seek to share this skill with the faculty. They can not only use the skills for their own personal and career success but promote these skills to ACC students. Information literate students and faculty can use the power of information with more ease and less effort, and be better prepared for their future in an increasingly information-rich world.

Because I believe so strongly in information literacy as a basic competency all educated adults should possess, I decided to study the state of information literacy at Adirondack Community College, where I am employed as the Reference and Instruction Librarian.

I focused my research on the faculty, including some administrators who also serve as adjunct instructors. I believe they must possess information literacy skills in order to value and reinforce them in our students. My mission in this project was to determine the general status of information literacy skills among the faculty and how those skills could be increased.

The Research Design:

The Study's Questions:

- **What information literacy skills do the faculty have now?**
- **What factors enhance the teaching of information literacy to the faculty at Adirondack Community College? What would motivate faculty to learn more?**

• As the instruction librarian at ACC, how can I use this case study to teach information skills more effectively to the faculty and staff?

The Propositions:

• What information literacy skills do the faculty have now?

Based on my experiences and anecdotal evidence, I believe the majority of faculty may not be aware of and do not know how to appropriately and efficiently use ACC's information tools to get the information they want.

• What factors enhance the teaching of information literacy to the faculty and staff at Adirondack Community College?

Faculty and staff will most successfully learn skills that they perceive are relevant, immediately applicable, easily accessible, time-saving, clearly understood, and perhaps enjoyable:

- relevant: The higher the information need, the more learning will take place. If a faculty member does not think knowing how to find information is important, she or he will not use these skills. Increasing awareness of the accessibility, type and usefulness of information may increase learning.
- immediately applicable: if skills are used again soon after learning, they will be remembered and used more.
- easily accessible: Ease of access and use is necessary for the skills to be practiced by busy faculty members.
- clearly understood: If faculty members perceives information-finding as confusing and tedious, they will avoid it. They may not know where to start to do research or experience unsureness along the way, and may not want to ask.
- time-saving: A faculty member has limited work time. Emphasizing that it can save time -- i.e., no reinventing the wheel when doing a project or looking for curriculum or assignment ideas --may alleviate that.
- enjoyable: lessening the discomfort of information-finding may result in increased

enjoyment of the research experience, curiosity, mental and emotional refreshment, and better well-being.

- **As the instructional librarian at ACC, how can I use this case study to teach information skills more effectively to the faculty and staff?**

  - If I know what factors increase the relevance of these skills to faculty, I can increase my emphasis on the successful factors.
  - I may be able to discover what learning styles and methods are most effective for our adult learners: workshops, one-to-one instruction, handouts, other techniques, or a combination.

Introduction of the Context:

Characteristics of the Area:

Adirondack Community College is a small community college in the town of Queensbury in upstate New York.

Queensbury is a suburban/rural town surrounding Glens Falls, a city of about 15,000. The region's population is relatively small: about 59,000 people each in Warren and Washington County, and 181,000 in Saratoga County, according to the 1990 census.

According to the Adirondack Regional Chambers of Commerce, the major employers include Glens Falls Hospital, paper product and medical device manufacturers, banks and other financial services companies and grocery stores.

It is slightly more expensive to live in the Glens Falls area: 4.5% above the national average, according to the 1995 ACCRA Cost of Living Index.

Earning a four-year college degree in this area requires traveling or independent learning skills. No traditional four-year college exists within 20 miles of Queensbury. The

closest state university is about 50 miles away. Four-year degrees in traditional programs are available by traveling to Saratoga Springs (Skidmore College) or to several colleges in Albany (SUNY Albany, RPI, St. Rose, Russell Sage, Maria and Union Colleges).

Four-year degrees are available in Glens Falls through independent learning programs (Empire State College), a new intensive program by the Adirondack Regional Chambers of Commerce, the College of St. Rose (which has a Glens Falls office), and SUNY Plattsburgh, which offers bachelors and masters programs on the ACC campus.

Three clerical/business schools are available, offering certificate programs: Mildred Elley, which opened an office in Queensbury in 1996, Bryant and Stratton Business Institute in Albany and Spencer Business and Technical Institute in Schenectady.

Characteristics of ACC:

Adirondack Community College, opened in 1961, is sponsored by Warren and Washington counties. The 1996-1998 ACC Catalog (1996: 5) states that:

> Adirondack Community College is a comprehensive two-year co-educational community college which offers two (2) Associates in Arts Degrees, five (5) Associates in Science Degrees, eighteen (18) Associate in Applied Science Degrees, seven (7) Certificate Programs and a diversified Community Education Program.

Its mission statement (1996: 6) is:

> As an institution of higher education whose primary service area includes Warren, Washington and neighboring counties in Northeastern New York, Adirondack Community College aspires to contribute to the quality of life of the people it serves.

> Operating under the Full Opportunity Program philosophy of the State University of New York, the College strives to provide educational programs and services of high quality that are comprehensive, accessible, responsive and flexible.
>
> The College seeks to meet community needs by serving as an intellectual, economic, cultural and social resource that adds meaning, scope, interest and richness to people's lives. To fulfill this mission effectively, the trustees, faculty and staff are committed to further development of Adirondack Community College, so that it continues to flourish as a vibrant and healthy community educational institution.

In 1997, the college opened the new Scoville Learning Center. This building contains the campus Library, spacious, pleasant areas for computers with Internet access, and a computerized library instruction room. In addition, the academic deans' and president's offices are located in the Scoville building.

The library building has become the showcase and centerpiece of the campus. This is a particularly prime time for the library to promote its services and resources, and perhaps make some changes in how faculty are involved.

ACC's Population:

ACC has 4,700 students, with a full-time equivalent of 2,400 students. The Dean of the College, William Gehring, estimates the split between full- and part-time students is 50/50. Many additional community members attend classes through the Plattsburgh and Continuing Education programs.

ACC has 125 part-time faculty, 85 support staff and 225 full-time faculty or administrators.

ACC's Library:

The ACC Library has four full-time librarians (two on 12-month contracts; two on nine-month contracts), three part-time librarians and the Director of Learning Resources, who also has a Masters in Library Science. The Director of Learning Resources joined the staff in April, 1997. She is an administrator; other librarians have faculty status. Four of the staff joined within the last two years.

The library added several new technologies in the last three years. The library converted from a card catalog to an online catalog about four years ago. The online service FirstSearch was also added with more than 60 periodical indexes, accessible from all faculty and staff personal computers. In addition, Internet access recently switched from the text-based Lynx software to the more intuitive, graphical browser Netscape. The librarians offer hands-on workshops to faculty, staff and students on these new technologies: online catalog, FirstSearch and basic and intermediate/advanced Web searching.

The Director of Learning Resources implemented two new outreach programs this year that have been received very favorably by faculty:

- "Website of the Week," a weekly notice she sends out on the campus e-mail system notifying faculty and staff about a useful web site, with the Internet address and a description. This serves several purposes: it reminds faculty that the library is actively

providing practical information to them; encourages faculty to learn how to access the Web, and is a good, easy public relations tool; and

- a liaison program, in which each librarian is responsible for purchasing materials for certain academic divisions and acts as the contact person for faculty members. This has had a large impact in quality and quantity of books purchased for the divisions, as the librarians are able to determine how the book budget is spent and can focus their purchasing in a specific subject area. Each librarian also sends notices of newly-arrived material to faculty, increasing their awareness of what the library owns. Librarians also regularly send faculty e-mails with useful Web sites or other news, interesting articles on their subjects and other information.

My Role at ACC:

I am the reference and instruction librarian, responsible for reference services and the instruction of information skills to the ACC community: more than 5,100 students, faculty, administrators and staff. I am on a 12-month contract and hold the faculty status of Assistant Professor of Library Science. I am the liaison librarian for the business and science divisions.

I joined the staff in the summer of 1995. When I arrived, a library instruction program was in place. It drew moderate numbers of classes, and seemed to be based on a more traditional lecture-and-tour style.

Since I arrived, my goal has been to increase the number of students reached by library instruction by:

• offering more innovative and relevant class sessions that would engage students in the information,

• providing handouts to reinforce information and explain services,

• offering one-session workshops focusing on particular topics or services, and generally,

• creating the attitude that finding information is an achievable, desirable, rewarding, mainstream skill everyone can be self-motivated to learn.

In our brochure "Library Instruction: Services and Programs," I describe our library instruction program this way:

> **We offer several types of** library instruction sessions...
>
> - general one-class library orientation sessions with a short lecture, tour and active learning exercises in using the online catalog, periodical indexes and Internet resources;
> - subject-specific sessions customized to the research needs of your classes;
> - workshops or demonstrations for classes on the online catalog, the Internet or specialized database services available on library's home page;
> - Library Research Methods (LIB 187), a one-credit introduction to college-level research skills, offered each semester.
> - In addition, many library resource handouts are available to assist students in finding information on various subjects and guide them in their research....

I speak to the majority of the classes who visit and teach most of the workshops to

faculty, students and staff. The librarians take turns teaching LIB187, once or twice per semester.

Effect of the New Building:

The number of classes and students visiting the new library in the fall of 1997 for formal library instruction *doubled* in the two years since I joined the faculty.

The overall numbers of students and classes visiting the library for formal library instruction increased 45% over last academic year:

Fall 1996/Spring 1997:	92 classes	1,182 students
Fall 1997/Spring 1998	133 classes	1,714 students

In the spring 1998 semester, the number of students and classes visiting the library increased by more than 60% compared to the spring of 1997.

I am very pleased at this increase and the favorable feedback we receive from students and faculty. However, if library instruction statistics continue increasing, I will not be able to keep up with the demand. The other librarians assist in teaching as they can, but have other responsibilities and may not be available when classes are scheduled.

I think the answer is a more fundamental one: the more people who are empowered with information skills, the better. I think the faculty could play a major role in library instruction, by at least teaching some of the basic concepts.

The ACC Faculty:

When I started in this job, I believed most faculty had a basic familiarity of how to find information in their specialities and would enhance their technical skills at workshops and by attending classes with their students. Since then, I have discovered that a number of faculty:

- are not aware of, or unsure of, basic library services or how to access them (such as how to access the online catalog),

- may ask students to find information in inappropriate ways (such as requiring them to do research only on the Internet), or

- have outdated skills and have not learned how to use current resources. Instead, they may rely on familiar methods that may not be the most complete or efficient, ask a librarian to do some research for them, or not do much research at all.

As an outcome of this study, I would like to reinforce a more balanced view of various information sources to the faculty, who sometimes equate "library research" with "the Internet," or "information skills" with "computer skills."

Some instructors have asked me to focus class sessions only on the Internet and give less emphasis to books and articles. I explain to them individually that all information is not on the Internet, and quality information is often best found in non-computerized formats. Therefore, I seek also to teach faculty the appropriate use of information technology. Knowing how to choose appropriate resources for one's information needs is part of the definition of information literacy.

My reading indicates that integrating library skills into course assignments is the

most effective way to teach library skills to students, especially compared to our current one-session-per-course method. This requires strong faculty "buy-in," however. Faculty may be more willing to have me develop assignments with them if they have a better idea of the value of information skills and possess the skills themselves.

These observations lead me to two conclusions:

• I want to increase the faculty's information literacy skills. This would help them in their own professional work, and they can share their skills with students.

• Therefore, I want to learn what would motivate them to learn, as well as discover the most effective ways to teach them.

Methodology:

• To discover current information skills:

I sent surveys to faculty who have and have not shown interest in increasing information skills, either individually or with their classes, with a cover letter explaining my project. Copies of the surveys and cover letters are in the Appendix of this paper.

- **Pre-tests before a faculty workshop**: I issued 17 pre-tests to faculty and staff before they took workshops on using the online catalog, FirstSearch indexes and Internet workshops during this academic year.

- **Post-tests/interviews for workshop attendees:** I sent a post-test (the same as the pre-test) to those faculty and staff, to see if a transfer of learning had taken place. I received 11 useable completed surveys back for faculty who also took pre-tests. I will do a paired comparison to see the "before and after" changes for faculty who provided both a

pre-test and post-test.

I discarded any surveys by non-teaching support staff, librarians, anonymous faculty who did not provide their names (so I was not able to match a pre- and post-test), or those who only took either a pre-test or a post-test.

- **Pre-tests to non-attendees:** I sent 19 "Information Resources Survey" -- the same pre-test given to workshop attendees, but with a different title -- to faculty who have not taken my workshops. I chose the names of the faculty randomly for a list of non-attendees created from a faculty phone list. I received back 13 responses.

-Interviews with faculty: In my cover memos for all surveys, I asked to interview any who were willing. I interviewed 10 faculty who have and have not received library instruction, and asked them their perceptions of library instruction and their current comfort levels and methods in finding information.

• To discover effective learning/teaching styles for the faculty:

I hoped that the interviews would offer also explicit reasons why faculty do or don't learn information skills. I encouraged the faculty to be as truthful and direct as possible.

Logic of Linking the Data to the Propositions:

The data from the pre- and post-tests and interviews helped me understand what these faculty members' skills levels are, and if the current methods of workshops and handouts are effective for most faculty to learn information skills. The interviews provided me with further details, such as how they currently do research and what may motivate

faculty to learn information skills.

Criteria for Interpreting the Findings:

With the pre- and post-tests, I wanted to determine if any learning has occurred by the change in their responses to the same test.

With the interviews, I wished to detect what patterns emerge in their responses about why, if, and how they effectively learn information skills.

Summary of Research Method:

By gathering this data, I want to learn the general level of information skills of the ACC faculty, and discover why they would or not increase their skills. These findings should help me determine the most effective steps to take to increase their information skills. I believe the librarians must be the proactive ones to involve the faculty in learning current information skills more thoroughly.

Limitations of the Study:

Case Studies:

The limitations of case studies in general is that each institution has a unique set of characteristics. What is true at ACC may not be true at other small community colleges in relatively rural areas.

In a small college, especially, where most faculty know each other and need to work together, there is the added "small town" disadvantage: if one shows a negative attitude towards another's areas of expertise, it may backfire later on. Faculty members in the surveys and interviews responded in positive or at least neutral ways to the thought of learning information skills.

Survey Language:

Some faculty mentioned while filling out the pre-test that they were not sure what some terms meant: "CD-ROM indexes," for instance. In seeing all of the results, I believe this was true for many faculty: several faculty said they use CD-ROM indexes and I don't recall ever seeing faculty using any CD-ROM periodical indexes in the library, which is the only place they are available. Perhaps they thought the CD-ROM indexes were available on their office computers, or thought I meant CD-ROM products in general.

This thought is important for two reasons:

- We need to clarify library terminology to faculty;

- We should publicize the types of technology to faculty, and differentiate between what is available to them and their students on the various library computers.

Faculty Reactions:

I noted that several faculty apologized in advance for their lack of knowledge about the library. Some seemed slightly defensive when I interviewed them, but tried to maintain courteous neutrality. Many searched my face before answering for clues in how

to answer questions.

I tried to alleviate this by telling the interviewees in advance that honesty -- not giving me the answer they thought I wanted to hear -- was essential for my results to be meaningful. I tried to maintain a neutral, receptive appearance while interviewing them.

Age of Faculty:

ACC has a high number of older instructors, who have been at ACC for at least 10 and up to 30 years. Many have worked only at ACC. When faculty retire, they may be replaced by younger instructors who may have more up-to-date information technology skills, and who may have received formal library instruction during their education. Formal library instruction as a regular part of education has only become prevalent in the last 15 years or so.

Small Sample Size:

Only 11 and 13 faculty responded to my post-test or control group survey, and I interviewed 10 faculty members. This information can be useful if it corresponds to the trends I find in the literature review, and will tell me about the culture of ACC's faculty as well as give me specific information about the skills and attitudes of the ACC faculty tested.

The percentages of responses change dramatically if even one survey question is answered differently, because of the small sample size. Therefore, the differences in

responses may seem exaggerated.

Self-selection:

Those who attended the workshops were obviously already motivated to learn. Therefore, those who not only attended the workshops but also filled out and returned both pre-tests and post-tests may have more favorable attitudes about the library and about learning new information skills. Those who agreed to be interviewed also may have had a more positive attitude toward the library. Even though all faculty surveyed were invited to be interviewed, of the 10 who said yes, eight had either attended workshops or brought classes in for library instruction sessions during this academic year.

Chapter 2 Review of the Literature:

> I dream of a land where every man, woman and child is a lifelong learner, equipped with sophisticated research, critical thinking, and cognitive skills. I dream of a self-actualizing populace who from cradle to grave are able to satisfy their recreational, informational, and educational needs. I call this place, this state of being and mind, "LI Dreamworld."

Sandra Sheppard's qucte (1988: 664) from her article on library instruction closely matches my ideal state for our faculty: I wish they all saw the importance of information skills and actively increased their skills. While some are self-motivated, others may need some encouragement to see the use of information skills. Some may never see it.

Why Information Literacy is an Important Issue:

Information literacy for faculty and students is not just a good idea or a noble cause. It has also been strongly encouraged, if not mandated, by accrediting and professional organizations for SUNY and all major library professional organizations as a high-priority educational outcome.

It is a now factor in college re-accreditation. In the Middle States Association of Colleges and Schools publications *Framework for Outcomes Assessment* and *The Characteristics of Excellence in Higher Education*, "[i]t is Middle States' position that information literacy should not be viewed as being the sole province of the library, but

rather should be the shared responsibility of the faculty who both teach general education and discipline-specific courses, of academic administrators, and of libraries" (Mullins, 1993: 18). ACC was reaccredited by Middle States this year, so faculty are more aware of the importance of information literacy.

National library associations cite information literacy as a major focus of college libraries in the 1990s:

- The American Library Association emphasizes the need for information literacy programs, as stated in the ALA's Presidential Committee on Information Literacy dating back to 1989. Since then, the charge for information literacy has filtered down to state and regional library groups.

- The Association of College and Research Libraries (ACRL) created a National Information Literacy Initiative committee. Among its actions are a National Information Literacy Institute, proposed by Cerise Oberman, which would intensively train librarians in information literacy skills and concepts.

This committee also offers an "Information Literacy IQ (Institutional Quotient) Test" to help colleges determine how ready they are to incorporate information literacy into the curriculum. One category on this quiz, "Recognition of the importance of information literacy," contains the true/false statement: "Faculty accept/partake in responsibility for information literacy education" (Oberman and Wilson, 1997: 1). It is an important first step to have faculty involvement and interest to have a successful information literacy program on campus.

The State University of New York (SUNY) Council of Library Directors produced

an Information Literacy Initiative report in September, 1997, the result of their mission to identify and integrate information literacy competencies across the curriculum in SUNY colleges. Part of their mission is to "develop an advocacy program that publicizes to SUNY faculty the principles of information literacy, especially in relation to accreditation. The intended audience is library, the University Faculty Senate, Academic Vice Presidents, the SUNY Council of Presidents, and other appropriate groups" (1997: 1).

The national clearinghouse for library instruction, LOEX (Library Orientation/Instruction Exchange), in Michigan focuses its annual conferences on information literacy teaching techniques. I attended the 1996 conference, "Programs that Work," which offered specific ways to increase information skills on campuses.

Model programs incorporating information literacy into the curriculum are meeting with success at Ulster County Community College, the University of Washington in Seattle, Florida International University in Miami, and many other institutions (Oberman, Lindauer and Wilson, 1998: 351-2). Faculty and librarians work together to create these programs.

In library associations and higher education organizations, information literacy has been identified as an important skill for the future for students, faculty and administrators.

History of Library Instruction:

Library instruction for college students can be traced back to Germany universities in the 1600s (Salony, 1995: 32). Library skills were taught at Harvard in the 1820s.

As the numbers of books increased, libraries grew and became more complex.

"With the establishment of the American Library Association (ALA) in 1876, librarianship became a profession. In the next decades, libraries grew in size, scope and service. Within the era, bibliographic instruction would be established" (Salony, 1995: 33). Hardesty states that "[b]ibliographic instruction has a long history among academic librarians dating at least to the 1880s" (1995: 340).

Library instruction for faculty was a later development. In 1933, faculty library orientations were offered at the Teachers College at Columbia University (Johnson, 1984: 201). Apparently Columbia was one of the few who did: in the 1930s and 1940s, some educators complained that large college libraries may not be necessary, especially since faculty did not involve the library's resources in their teaching (Hardesty, 1995: 340).

Hardesty states that librarians have emphasized the need for faculty to become involved with library instruction at least since the 1940s for the success of students. However, in the early days of library instruction, it may have been difficult for librarians to research how to go about this. The earliest citation I found on ERIC for library instruction for faculty dates back to 1970; little or nothing was written in the mid-to-late 1960s. (ERIC started in 1966.)

In 1960, the American Association of School Librarians contacted professional associations to encourage them to more thoroughly train teachers in library skills, and faculty workshops and library orientation classes were given in various community colleges around the United States by the 1970s (Johnson, 1984: 202).

Pioneers such as P.B. Knapp at Montieth College in the 1960s and Evan Farber at Earlham College in the 1970s seems to have turned the tide with their colleges' programs

integrating library instruction into the curriculum. "The modern period of bibliographic instruction can be dated from Farber's presentation in 1969 to the College Libraries Section of the Association of College and Research Libraries followed by Kennedy's (1970) article in *Library Journal*. With Farber's presentation and Kennedy's article, the Earlham College program became widely known. By the early 1970s, bibliographic instruction had emerged as an authentic movement with its own annual conference at Eastern Michigan University," LOEX (Hardesty, 1995: 340).

By the mid-1970s, Hardesty continues, the field of library instruction had its committee within ACRL and its own journal by the 1980s, *Research Strategies*. The latest milestone of acceptance was Middle States' recognition of the importance of information literacy in 1994.

Only in the last 15 or 20 years, however, has it regularly been incorporated as part of a college education or as a career speciality for librarians in the United States. This seemed to coincide with the expansion of information technologies: research became more complicated as electronic databases entered the picture by the 1970s.

The terminology has changed, also, as information became more computerized. The field has been known as "bibliographic instruction." I prefer the terms "library instruction" or "information skills." To me, the term "bibliographic" is not comprehensible to most people and also seems to imply information only in books.

Oberman writes that library instruction in the 1970s changed from teaching information "tools" (i.e., how to use a periodical index) to concept-based instruction (why and how to find articles), since the tools became more diverse. With the complex and

numerous information technologies now available, she perceives we are swinging back to teaching tools: how to operate "electronic gadgetry" (1996: 319). Librarians should resist the temptation to focus on the allure of computerized information and still emphasize the value and variety of print sources, while continuing to teach the overall concepts of research, she recommended. Oberman cites William Leiss to describe the overall goals of a library instruction program: "First, a library instruction program should focus on preparing users cognitively to properly interpret and use information from the 'information treasure-house.'...Second, a library instruction program must explicitly teach users the power of information and how to leverage that power in today's world" (1996: 316).

How Faculty Learned Library Skills:

Faculty whose formal education took place before library instruction was regularly taught have often not taken any courses focusing on information skills. The literature indicates that many faculty feel students should learn it on their own as they did, even though the picture is more complex now.

Cannon, summarizing Hardesty's results in faculty attitudes toward library instruction, said how faculty learned information skills, or did not learn them, is a major factor in their use of library instruction now. It affects faculty attitude more than many others:

> Hardesty, in his survey of more than three hundred faculty from seven different colleges and universities, also considered variables such as age, teaching experience, highest degree, and source of highest degree. No

> significant relationship was found for any of these variables. Variables that did affect faculty attitudes were the faculty's own experiences in learning to use the library, the frequency of faculty library use, and publishing output. Those who had to learn library research skills on their own were less likely to provide library instruction and assumed their students would learn in the same way. Those who used the library more often were more likely to provide library instruction and faculty who published more where more likely to require library instruction. Hardesty observed differences in attitude among disciplines, but attributed these to local, institutional influences. He concluded that librarians and the library administration can make the difference within their own institution, provided they have an understanding of the local faculty's perspective. (1994: 525)

In 1990, Thomas repeated a 1982 survey at California State University that showed that faculty expected students to learn library skills on their own, as they did. Her study showed that most faculty "still seem to feel little responsibility for assuring that their students develop library skills, traditional or electronic. However...this belief drops as rank drops...lower ranking faculty are less likely than their higher-ranking colleagues to feel that the curriculum is too full for library instruction" (1994: 220).

She noted that female professors are more likely than males to ask a librarian for help in teaching classes about computerized research. Instruction librarians may experience more success by focusing library instruction efforts on younger and female

instructors, Thomas suggests, because they may be more open to the idea. Focused attention may be worthwhile to try as a short-term experiment to introduce a new instruction program, but I think other faculty would inevitably feel excluded. At ACC, a good number of younger female instructors request library instruction. In reviewing our library instruction statistics for the past year, I see that they are not a disproportionate number; a wide range of faculty have requested library instruction.

Maynard, in his study of faculty attitudes towards library instruction at The Citadel, noted that "94 percent of all faculty regarded library instruction as important. Yet, faculty gave lukewarm support to the idea of helping design and use new methods" (1990: 71). This could be because "English faculty are often the expected providers of library instruction" (68), and of those, 67% included library instruction in their classes (70). In the survey results of non-English faculty, "other faculty overwhelmingly agreed (86 out of 92) that library instruction is important..., but two-thirds did not offer their students library instruction" (69).

Faculty vs. Student Approaches to Research:

In her article "The Faculty Problem," McCarthy notes:

> To us it is obvious that bibliographic instruction merits an important place in every college and university. Regardless of all possible efforts we may make toward its cause, however, bibliographic instruction faces a formidable obstacle: the teaching faculty of the institutions at which it is offered.....It a commonplace

> admonition, when advice on library instruction is given, that the faculty must be involved; but we never really come to grips with the fact that few of them wish to be involved. They wish, certainly, that their students knew more about the library; they will probably admit that they should know more themselves (1985: 142).

Why would this be? McCarthy suggests that the tools we teach students to use are not those that faculty actually use: "it was not for their everyday use that the great complex of bibliographies, indexes and catalogs were created" (142). And, publishing faculty even contribute to the increasing complexity of information: "With every passing year -- in spite of any progress made so far by information technology -- more effort is required to complete a bibliographic search. But academic scholars are hardly aware of this huge edifice of their own creation. Most of the time, they simply do not find it relevant" (144).

Faculty tend to find information differently than students: they already know the basic sources, relevant names and organizations to find what they need, so tend not to use many library tools. Students, however, don't have this level of experience, so resort to more linear approaches: looking up subjects in books and periodical indexes. Faculty may have not used these techniques for a long time so may not remember or value them as much.

Leckie called this significant difference in how faculty and students do research the "expert researcher vs. novice" model. "There is likely to be a large disjuncture between the expectations of the faculty member as the expert researcher and the capabilities of the

undergraduate as the novice researcher" (1996: 4). Leckie describes this difference, starting with the expert researcher model:

> The model requires a long process of acculturation, an in-depth knowledge of the discipline, awareness of important scholars working in particular areas, participation in a system of informal scholarly communication, and a view of research as a non-sequential, non-linear process with a large degree of ambiguity and serendipity. The expert researcher is relatively independent, and has developed his or her own personal information-seeking strategies (i.e., a heavy reliance on personal contacts and citation trails)....Librarians are rarely thought of as key people in the research process. Unfortunately, this expert model does not work well when applied to novices (i.e., undergraduates) who most often have none of these characteristics. Undergraduates, particularly in the lower years, are exposed to certain disciplines for the first time. This exposure frequently consists of a textbook, reserve materials, and lectures. The students have no sense of who might be important in a particular field.... (3)

As Leckie noted, the librarian is not often involved in the expert research model.

Role of Faculty Culture:

When students increase their information skills, they may know how to find information more effectively and get better grades on research papers. If library instruction affects the academic success of students, why have faculty not enthusiastically jumped on

the bandwagon?

Hardesty thinks the problem may lie in the culture of faculty. In an article on the role of faculty culture on library instruction, he states that faculty have common beliefs and values towards education. One of these values is the learning and teaching of knowledge, but in a subject-specialized way. Those who teach in interdisciplinary ways, such as librarians, are less credible and have lower status (1995: 349).

Also, knowledge of content is more important to faculty than effectiveness of teaching, Hardesty discovered. "Not only is teaching not frequently discussed, it is also not rigorously evaluated" (351), a situation that occurs at ACC also.

Hardesty concludes that modern faculty culture "is a highly autonomous, often isolated, faculty faced with considerable pressures, including lack of time, to perform in areas in which its members are particularly not well-trained (teaching)....The result is a culture characterized by a resistance to change, particularly a change promoted by those (such as librarians) who are not perceived as sharing fully in the culture and are not promoting values (bibliographic instruction) compatible with it" (354). The result: faculty often do not want to give up classroom time, content and control to librarians (341).

Worrell discusses Pete Senge's learning organizations theory, in which people continually learn and expand their knowledge. Part of this is providing efficient methods to teach people as well as providing an atmosphere in which it is safe and acceptable to learn and experiment with new ideas. While it is best if this happened on a higher organizational level, Worrell suggests that library administrators should do what they can to change faculty attitudes about continual learning of information skills (1995: 356).

Does ACC have a learning organization culture? A thorough answer is the topic of another paper, but I believe that ACC's culture has been changing lately. In the last year or so, both new and long-time faculty members have enthusiastically offered professional development sessions in workshops and faculty meetings on active learning and teaching techniques. Some faculty have incorporated more innovative, creative and effective learning methods into courses.

Some ACC faculty may not feel the need to keep updated with more effective teaching techniques and current information technology, however, because tenured faculty currently are not regularly evaluated at ACC. That may soon change.

In the "Statement of Accreditation Status" report in February, 1998, the Middle States review committee stated in its recommendations for the faculty to "Develop a plan for the annual classroom evaluation of all faculty to measure positive learning experiences and teaching effectiveness with respect to specific learning objectives and outcomes" (1998: 14).

In the report's last section (1998: 35), the recommendations state that "The college should sustain its educational viability by...designing a college-wide technology plan which includes extensive training in its efficient, creative use for the staff as well as the faculty...." This would also include faculty learning to use information technologies such as the online catalog, FirstSearch databases and Internet.

Some divisions at ACC are facing declining enrollment. Faculty culture may change from "doing what we always do" to doing whatever is needed to keep their jobs and not be retrenched. More than one instructor has contacted me in the last few months

to say they'd like to learn more about finding information, and do research on how to create more effective, in-demand courses.

Non-library Perspectives:

Dennis and Harrington (1990) found that librarians think faculty should learn library skills as *librarians* define and use them in the library. Faculty want to get information in any effective way, which often bypasses that traditional "books and articles" research route that librarians use and teach students.

They also mention the need to see non-library perspectives when dealing with faculty involvement in library instruction: "To gain the insight to develop services and programs to meet the needs of the end-users, we must stop looking at information technologies from the library framework and listen to what end-users are saying" (1990: 49). If librarians do not, they can "damage their credibility as information professionals" (50).

Librarians apparently do have an image problem as credible professionals among faculty. "Given many faculty members' low opinion of librarians as academic equals, it is not surprising that several surveys have revealed that many faculty are not interested in sharing their classroom with librarians -- or in being held responsible for teaching their students how to use the library" (Hardesty, 1995: 358), resulting in a "not in my backyard" attitude.

This is more prevalent among publication-oriented faculty and less prevalent

among teaching-oriented faculty (Hardesty, 1995: 359). But, if teaching skills are given less regard than subject expertise, teaching-oriented faculty may have less status and credibility than the publication-oriented faculty, and their opinions not heard as much.

Many faculty may simply not be aware of the educational trend to include library instruction into courses. Jacobson and Valleley discovered that library instruction is rarely covered in non-library journals. They analyzed articles over a 10-year period in a range of subject periodical indexes used by college faculty. "From this ten-year-plus period we found only 74 articles in non-library journals that mentioned library instruction or described courses requiring some form of structured library research in a college or university setting" (1992: 360), and most were written or co-written by librarians.

Perhaps of more concern was the attitude towards librarians in the articles: "Of the 18 written solely by faculty, only three were detailed and positive representations of bibliographic instruction...In the other 15, faculty members apparently did not consult with librarians or only mentioned them in passing." To lessen this attitude and increase awareness outside the library field, the authors encourage librarians to co-author articles on successful librarian-faculty team teaching to appear in journals in a variety of disciplines (Jacobson and Valleley, 1992: 362).

For this paper, almost all the articles I found on teaching library skills to faculty came from library journals. A few came from education or psychology journals.

Faculty members who do incorporate library instruction should be wholehearted backers of the skills taught. Carlson and Miller (1984) note that "if a professor uses BI out of some vague feeling of obligation but with no definite sense of its value, students will

easily perceive this attitude. Students will then have an ample excuse to view the BI session - or the assignments - as unimportant" (486).

Increasing Faculty Motivation to Learn Information Skills:

Steffen studied the effects of teaching DIALOG database searching to faculty in 1984, but her results closely follow what is happening with Internet searching today. Steffen said that faculty wanted to learn electronic searching for several reasons: to search from home, to learn what their students knew already, to save time, to increase their information resources or to just learn more about how to use computers. "As more faculty were trained, a certain peer pressure to keep up to date and a curiosity about the capabilities of this new tool developed. As one faculty member put it, she wanted to 'know what the system is capable of and enough to keep [her] from feeling moronic about the subject.' Regardless of the individual's reason for wanting to learn to search, all participants expressed an overwhelming desire to be independent, to search without making an appointment, and to control the research process themselves" (1986: 148).

This new knowledge spread to other types of technology, Steffen found: "These feelings of control also extended to computers in general....Some who had been reluctant to use our public access terminals were suddenly seen at terminals looking up call numbers," using word processing programs and buying their own computers (Steffen, 1984: 149).

Benefits extended beyond that, to students, Steffen found: "Faculty also cited guiding their students in the use of online searching, designing appropriate assignments,

facilitating student research projects and increasing credibility with their students as important benefits of learning to do their own online searching" (149). One could substitute the phrase "Internet" to update this study to today.

Going beyond even that, Steffen learned that library instruction for faculty had farther-reaching results, in the credibility and status of the librarians and library services. "Faculty conveyed a more positive attitude about the library's resources which resulted in more teachable students. In several courses, the librarians and faculty members worked as team of equals to prepare students for searches and to conduct the searches. This public acceptance of the librarian as fellow instructor changed the students' perceptions and attitudes about bibliographic instruction. The only ones to complain about all this were the students, who found themselves spending more time in the libraries and writing papers" (1984: 150). Faculty started to see the librarians as teachers and consultants.

But: how to convince faculty to participate in library instruction in the first place, if they are not self-motivated? The ideas from an article on student motivation, "What's in it for me?," could be expanded to librarians teaching faculty: the authors noted that "teachers' efforts at making content relevant probably led to increases in motivation" (Frymeier and Shulman, 1995: 48) and when teachers make "connections between course content and students' personal goals/needs and career goals" (49).

If faculty see information skills as relevant to their goals, they may be motivated to make the time to learn. Librarians should probably be more active in pointing out that learning information skills can save faculty time and effort and increase independence and confidence in doing research.

Millson-Martula and Menon's 1995 study of "customer expectations" in academic libraries saw a positive correlation between satisfaction with the library and increases in information skills. "As students and faculty develop greater experience with library services, it is more likely that not only will they be become quite satisfied with those services but also that their level of satisfaction will increase progressively" (39).

To discover faculty and student expectations of the library, librarians should not make assumptions but actually collect data through surveys, focus groups, interviews, questionnaires and complaint logs (40, 44). This is a worthwhile goal for our library: I feel my surveys and interviews for this project have a library-oriented view. Discovering what faculty actually want from the library -- not assuming what they want -- would explore the faculty's needs.

Dennis and Harrington state that mere convenience and visibility will help steer library users towards favoring some information technologies over others (1990: 48). Today, faculty may enjoy and prefer using the Internet to find information since it is available in their offices, instead of having to walk across campus to find a book in the library.

How to Teach Information Skills to Faculty:

Once we have motivated faculty to learn these skills, what do we do with them? There seems to be no one sure-fire way to increase the familiarity and comfort level of the faculty with the library's resources, based on the literature and personal experiences of

librarians.

At the 1998 conference of the State University of New York (SUNY) Librarians' Association, this question was raised by several attendees at one session. The roomful of instruction librarians offered several approaches but no one ideal answer, other than to be persistent in trying something.

I encountered a variety of successful approaches used by libraries around the United States in my reading. Most approaches recommend steady, continuous public relations efforts, with lots of one-to-one contact, perhaps at first focusing on one receptive academic division.

As a result of workshops, demonstrations and handouts presented through a grant-supported Faculty Outreach Program at Rutgers University-Newark's Library, more faculty requested library instruction sessions. "What we were seeking was a 'trickle down effect,' with a more aware faculty wanting their students to learn and experience what they had learned" (Mullins, 1993: 21). These outreach efforts also included a mentoring program focusing on humanities faculty, collaborative events with other departments such an "Info Day" with Computing Services, and promoting information literacy as an integrated part of the curriculum. "A key point here is that the Library's teaching program is focused on making sure that the faculty are increasingly comfortable with using the new services and tools available within the library or through the Internet or other channels" (21).

Libraries should not only promote specific tools to faculty but also increase awareness of what library instruction is and what it can do for the faculty and students --

and not give up the effort. Jacobson and Valleley (1992) said "This promotion and explanation is not simply a one-time event. It may take years to reach some members of the faculty, and others will never see the need for it. Experience has taught us that promotion is not only the first necessary step of a BI program, but can be the most difficult. Faculty may be uncertain as to how they should relate to librarians in this new educational role; they may be begrudging of their class time; they may have limited, if any, experience with sharing the teaching responsibility in their classrooms. The Library's first hurdle is to gain the active support of classroom faculty by convincing them of the purpose and need for BI" (360).

Steffen found that "The responses to the workshops were overwhelmingly positive. Faculty enjoyed learning a new skill, experienced new feelings of control about computers, and promise to include assignments with online searching for their students" (1985: 148).

Attendance at faculty offerings is not always the sole mark of their impact, McCarthy noted: "Bibliographic instruction of faculty should be far more common than it is....Even if presentations are not well attended, the very fact that they are offered at least brings to the attention of the academic community the fact that the library thinks such instruction appropriate" (1985: 144).

It will take teamwork between faculty and librarians to create lifelong learners of faculty and students. Sheppard notes librarians and faculty should meet each other half-way: "What does it take to create this rich environment where information seekers are legion? It takes discipline-oriented librarians and library-oriented teachers. It takes a

mutual commitment on the part of teachers and librarians to equip the lifelong learner with skills in learning how to learn. It takes crossing over the traditional lines which distance faculty at various levels from each other and librarians" (1988: 665).

To reach faculty to incorporate more information skills into their courses, Sheppard suggested several specific ideas:

- personal contact, perhaps starting with faculty who are enthusiastic library users;

- a survey followed by personal contact, asking faculty to consider ways to integrate library skills in course assignments;

- a faculty development workshop to talk about team-teaching information skills;

- learning how faculty perceive the role of the library in students' education;

- involving faculty more in selecting library materials;

- being more visible and active on campus: participating in committees, talking to faculty;

- delegating: allow well-trained students to lead library tours so librarian time is better spent (666).

The SUNY Council of Library Directors' Information Literacy Initiative made several recommendations of ways to involve faculty:

- Efforts to involve faculty:

  Incorporate IL into small, specialized classes that

  faculty find appealing to teach

  Emphasize IL as a selling point for recruiting students

to their department's program

Explore possibilities of getting grant money for joint projects with individual departments

Obtain funding for departments to acquire necessary equipment to enhance their ability to incorporate IL in their courses (presentation equipment, computers, connections, specialized equipment)

Consider increase in credit hours for a course that is IL intensive

Propose course load shifting for faculty who teach IL intensive courses

Find resources to make charge out time or extra stipend available for faculty willing to develop an IL class (1997: 5).

Maynard, from his experiences at The Citadel, advised librarians to target receptive English faculty to offer course-integrated information skills, continually increasing awareness of library services and ensure administrative support for library instruction.

Blandy reinforces that: "If the library is a weak ancillary to classroom instruction, college funds will go to glamour projects or whatever can be 'pointed to with pride.' Integrating library skills into course work is a matter of survival" (1989: 69).

At Ulster County Community College in New York, librarians realized that for information literacy to be taught to as many students as possible, it would be necessary to involve non-librarian faculty. Librarian Patricia Carroll-Mathes trained several interested

faculty to teach a one-credit library skills course (Branch and Gilcrist, 1996: 480). The goal, the authors say, was to integrate library skills into every course, eliminating the need for a separate course. Meanwhile, awareness of information literacy has increased among the faculty.

Carroll-Mathes spoke about her experiences at the SUNY Librarians' Association conference at SUNY Fredonia in June, 1998. Planning for this program started in 1992, she said. Sixteen sections of the course, LIB111, will be offered during the 1998-1999 academic year. Faculty from physical education, business, chemistry, communications, nursing and many other disciplines have taught the course. LIB111 is also now offered on the World Wide Web through the SUNY Learning Network.

I attended a conference in which Carroll-Mathes described this program about two years ago, and was surprised that some librarians in the room strongly disagreed with this approach. Several felt that only librarians are truly qualified to teach library skills. I believe it is a good idea for faculty to learn and teach basic information skills, to allow librarians more time to focus on teaching higher-level skills. The library benefits in the long run by having more faculty interested and involved with the library, essentially acting as "disciples" of information skills.

Johnson suggested offering both student and faculty orientation classes. For the faculty sessions, "the most difficult task is determining the level of instruction" (1984: 202), offering neither too much detail to overwhelm nor too basic to offend." For the student sessions, "most students will pay better attention to the librarian instructor if their regular instructor is present. Thus, requiring his or her presence will serve double duty,

since the instructor will reap the benefits of the class along with his students" (1984: 200).

I have found this to be true, so request that the instructor attend the class. When they don't, students can be inattentive or not show up. If they do, I often hear them exclaiming about new (or old) services they had not known about.

In a recent class with the instructor in attendance, I divided the class into pairs, teaming the instructor to work with the last "odd-numbered" student to find relevant sources on the Internet on their topic. The instructor had never used the Internet. Throughout the hands-on portion of this class, he frequently laughed and commented in surprise about their findings. The student, more familiar with computers than the instructor, guided their searching. It was a good model of continual learning to offer to the rest of the class, and the instructor certainly enjoyed the experience.

Integrating Information Skills into Courses:

So: the message of the importance of library skills has reached the faculty, and they have learned some skills through programs established by the librarians. What then? While increasing faculty skills is a worthwhile end in itself, the purpose of a college is to educate students.

For true information literacy to occur, it must be learned as an ongoing process, not a 55-minute "one-shot" library instruction class once a semester. By integrating research skills into assignments, students absorb, retain and use skills over long period of time. Library literature has many examples of successes with integrating library skills into courses.

To assist faculty in developing assignments, librarians can point them to successful similar projects and talk with them about ideas. The SUNY Council of Library Directors' Information Literacy Initiative offers some ways:

> • Provide resources and support for faculty:
>
> Provide a brochure detailing IL competencies and accreditation requirements for wide distribution.
>
> Training sessions, discussion groups, brown bag lunch speakers series
>
> Access to resources through a web site
>
> Cooperation and support of library staff
>
> Make sure technical support is made available, i.e.: computing connections, hardware and software support
>
> Provide examples of successful IL projects
>
> Work with faculty development offices to promote IL across the curriculum and to develop training for faculty. Faculty training programs would be helpful as 'refreshers' for faculty who want to update their own IL skills.
>
> Produce a video on value of Information Literacy for presentation in workshops and other groups (1997: 5).

In the two years or so, many specific assignments to integrate information literacy skills into courses have been published in books, articles and on the World Wide Web, geared towards various disciplines. All of them teach not only how to find information but also to critically evaluate the information.

An assignment to integrate information skills into a health sciences or ethics class, for instance, could ask students to imagine that a friend with a chronic disease recently found out he could be helped with a controversial new treatment. How would one help that friend? What kinds credible sources would one use to make a decision on whether to undergo that treatment?

Other shorter assignments could be sprinkled throughout a course:

- finding and comparing articles offering different viewpoints, for an English, economics or marketing course;

- preparing an exhibit or open house on a certain subject of interest to the campus for a science, psychology or photography course;

- nominating a well-known person in a certain field for a Nobel Prize.

All of these assignments involve not only knowing why, where and how to look for information but also evaluating it and using it appropriately, the components of information literacy. By tying these assignments to real-life needs, they can be also more relevant to the students.

Ideally, the librarian and instructor work together to develop these types of assignments so they are integrated into the course and not tacked on as an afterthought. Daughery and Carter (1997) believe that the most effective way to teach information

literacy is in a "co-developed" course in which information literacy was a stated outcome. Students seemed to learn better, need less time and fewer trips to the library to complete assignments, and have a better attitude towards library research: all worthwhile goals.

Chapter 3 Results:

Pre-test and Post-test Results from Workshop Attendees:

Below are observation on results of:

- the **overall results of the pre-test,** taken just before a faculty workshop, **compared to the post-test**, taken several weeks or months after the workshop.

- a **paired comparison of each faculty member's set of pre- and post-tests** to detect the differences in the replies; and

- the **post-test from workshop attendees compared to the "Information Resources Survey,"** taken by a control group who had not attended workshops or brought classes to the library.

The appendix contains the raw results of the two sets of surveys, as well as the copies of the pre-test, post-test and Information Resources Survey and the cover memos sent to the faculty.

Results of Pre- and Post-tests:

Comparison of Overall Answers to Pre-test and Post-tests:

Comparing the overall results of the pre- and post-tests among the 11 participants, I observe the following:

1) Information technologies currently used for academic purposes:

- Usage of all library technologies increased overall in the post-test. The online

catalog, Internet and FirstSearch databases all show an increase in usage in the post-test. Faculty used these technologies a total of 16 times in the pre-test; this increased to 22 in the post-test.

- The only technology not to change was the CD-ROM indexes, which were not taught in the workshops.

2) How often these technologies are used:

- In the pre-test, the Internet was rated first five times. In the post-test, this was rated first four times and rated a lower number five times. To me, this indicates more people are using it but are not using it as their sole information technology.

- In the pre-test, the online catalog was used a total of three times. In the post-test, this doubled to six uses, four of which were rated first, used most frequently.

- CD-ROM indexes, which no workshops addressed, increased slightly from two to three uses. This does not correspond to the two uses indicated in the first question. I suspect faculty were thinking of CD-ROM products in general, not the periodical indexes on CD-ROM.

3) Of those not used, why not:

- Online catalog - the number of those who did not know how to use it efficiently enough to make it worth their time decreased from four to two in the post-test. The number of people who did not know where to access decreased from two to one in the post-test.

- CD-ROM indexes - Even though no workshop dealt with the CD-ROM periodical indexes, the number of faculty who indicated they do not know how or where to access them decreased from six to four.

- FirstSearch databases - The number of people who did not know how or where to access them decreased from five to two in the post-test.

- Internet - Three people in the pre-test indicated they did not know how to use it efficiently enough to make it worth their time; this decreased to one in the post-test.

4) Of technologies used for classes or your job, why used:

- Online catalog: The number of faculty using the online catalog to see what the library owns on a topic increased from three to five in the post-test; one more person (from two to three) uses it to plan which videos to show to classes. Two more people use it for "other" reasons, such as to teach a class to do research.

- CD-ROM indexes: Three faculty indicated that they use these, up from one in the pre-test.

- FirstSearch databases: The survey showed a drop of one, from three to two faculty, use FirstSearch to find articles for classes, even though FirstSearch is primarily a periodical index service. Three used it in the pre-test to find books or other materials; five used it for those purposes in the post-test. Perhaps faculty find the one book database, WorldCat, to be of more use than the periodical indexes.

- The Internet: In the pre-test, five used it to explore in general; this increased to seven. Three used it to find material for their classes or jobs in the pre-test; this increased

dramatically to seven in the post-test. Fewer used it to try out sites they will ask their students to use: from four to two. "Other" uses of the Web increased from one to three.

5) Which technologies have you used in other environments?

- Online catalog: increased from one to four; perhaps people tried online catalogs in other libraries as a result of being familiar with ACC's catalog.

- Internet use dropped from six to five in the post-test. I'm not sure how to account for this. Several indicated they use the Internet at home.

- CD-ROM indexes: remained unchanged at three.

- FirstSearch databases dropped from three in the pre-test to one in the post-test; perhaps faculty did not really understand what FirstSearch was and thought it meant any electronic index service.

6) Technologies faculty no longer use now at ACC:

This question was meant to indicate if ACC lacked a service faculty had used elsewhere. The pre-test showed one person answered no; in the post-test, two answered no.

7) Attitude towards these information technologies:

Attitudes remained fairly constant: in both the pre- and post-tests, five were very positive, three were somewhat positive. "Neutral" changed from two to three respondents.

8) Other comments:

In the pre-test, all three comments focused on wanting to update skills and learn more about these technologies.

In the post-test, two of three expressed a wish for more time to explore and become more familiar with the technologies. One respondent praised the instructor; I think the faculty member may have thought the survey was a type of evaluation.

Further discussion of these results will be in the next section of this paper.

Paired Comparisons for Each Set of Pre-tests and Post-tests:

Faculty attended workshops and took pre-tests in September 1997 or February 1998. All post-tests were done in March or April of 1998. Therefore, more time elapsed between some pre- and post-tests than others.

My abbreviated observations are listed below, comparing each of the 11 participants' answers between their pre-tests and post-tests. For each, I have listed which workshop the faculty member attended, and the major areas in which I noted the answers changed in the test.

Faculty member 1:

Type of workshop: Basic Internet Searching, Feb. 1998

Areas of change: No changes except use of Internet now includes "research"; choice of "To try out sites I will ask my students to use" not checked off this time. Attitude toward information technologies remains "very positive." Note that faculty

member took workshop in February and post-test in March, so not as much time elapsed as with other respondents.

Faculty member 2:

Type of workshop: Online catalog & FirstSearch, Feb. 1998

Areas of change: Use of information technology now includes Internet and FirstSearch databases, in addition to online catalog originally marked in pre-test. Only item participant not aware of is CD-ROM indexes; Internet and FirstSearch were previously also checked off. Faculty member now additionally uses catalog to find videos for classes, and now uses FirstSearch to find articles and books for classes/job, and Internet to find material for classes/job. Attitude has changed from "Neutral" to "somewhat positive."

Faculty member 3:

Type of workshop: Basic Internet Searching, Sept. 1997

Areas of change: Participant indicates all the listed information technologies are now used. No technologies remain that are not used. CD-ROM indexes are now used to find articles; FirstSearch is now used to find books and articles for classes/job; to try out databases the participant will ask students to use, to find book reviews (finding articles with FirstSearch not checked off this time), Internet, not used before, is used now to explore in general and to find material for classes/job. Attitude remains "somewhat positive."

Faculty member 4:

Type of workshop: Basic Internet Searching, Sept. 1997

Areas of change: Participant adds online catalog and FirstSearch databases to information technologies used now; does not mark off CD-ROM indexes as before. (I suspect participant realized this indicated a specific type of CD-ROM product, not CD-ROMs in general, as pre-test answer indicated.) Now uses online catalog to teach classes to research; FirstSearch is now used to teach students. Finding articles and book review choices not marked off this time; but participant noted that she was not currently teaching a credit course. Internet now used for three of four purposes (trying out sites for student use not checked off this time). Attitude remains very positive.

Faculty member 5:

Type of workshop: Basic Internet Searching, Sept. 1997

Areas of change: Questions 1-6 not answered on post-test; pre-test indicated that participant did not know how or where to access any other technologies listed. Attitude remains neutral. Commented that more "time and lack of familiarity limits my use of these information technologies." Additional input given in an interview.

Faculty member 6:

Type of workshop: Basic Internet Searching, Sept. 1997

Areas of change: FirstSearch was only technology used in pre-test; post-test also included Internet and CD-ROM indexes. Three of four technologies in pre-test were listed

as unfamiliar; only online catalog was listed in post-test. Use of each technology was listed as "other" in question #4; for FirstSearch, to find web addresses, though that is not a major use of FirstSearch. Attitude changed from "very positive" to neutral.

Faculty member 7:

Type of workshop: Online catalog/FirstSearch, Sept. 1997

Areas of change: Questions 1-4 not answered in pretest. In post-test, she indicated that online catalog was only technology occasionally used. Participant was not familiar with using CD-ROM indexes or the Internet. Commented that she cannot reach FirstSearch from office computer. Attitude is somewhat positive in pre-test; neutral in post-test.

Faculty member 8:

Type of workshop: Online catalog/FirstSearch, Sept. 1997

Areas of change: In pre-test, Internet and FirstSearch were technologies used; in post-test, indicated those plus online catalog. Indicated little familiarity with CD-ROM indexes. Did not mark off any uses of technologies in pre-test for question 4; in post-test, uses online catalog (to see what library owns; plan videos); FirstSearch (to find articles, book for classes, Internet addresses) and Internet (to explore, find material, try out sites for students to use). Attitude not marked on pre-test; "very positive" on post-test.

Faculty member 9:

Type of workshop: Online catalog/FirstSearch, Sept. 1997

Areas of change: In pre-test, indicated that Internet and FirstSearch were technologies used; not able to use online catalog efficiently enough. In post-test, online catalog and Internet were checked as technologies used; FirstSearch was marked as not a useful resource for participant's needs. Online catalog (not marked in pre-test) is now used to see what library owns; CD-ROMs are now used to find articles. Participant marked FirstSearch as useful for books and article in pre-test; not marked on post-test. Internet use changed from to explore and to try out sites: to "to explore" and "find material for classes/job."Attitude remains "very positive."

Faculty member 10:

Type of workshop: Basic Internet Searching, Feb., 1998

Areas of change: In pre-test, used Internet and online catalog; in post-test, used Internet and FirstSearch. In post-test, indicated that she hasn't had the need yet to use online catalog or CD-ROM indexes. Now knows were to access FirstSearch, unlike pre-test answer. Uses FirstSearch to find articles, books, book reviews; had not used it at all in pre-test. Remains "somewhat positive."

Faculty member 11:

Type of workshop: Basic Internet Searching, Sept. 1997

Areas of change: Internet remains only technology used. Uses have expanded

from two to three purposes: to find material, to try out sites, and now, to explore in general. Answers for online catalog, FirstSearch and CD-ROM remains "do not know how to access/use efficiently." Attitude remains "very positive."

Comparison between Overall Post-test and Survey by Control Group:

What is the information technology use/awareness among workshop participatnts compared to those who have not attended workshops?

To compare the two groups, I will compare them by percentage, since I received 11 useable post-tests and 13 responses from the control group. Percentages are rounded to the nearest whole number on the results in the appendix.

I did not send out pre-tests to the control group, since I did not know who was going to attend workshops later in the semester, which would eliminate them from that group.

Question 1: Information technologies used:

Overall, the two groups used technology fairly equally.

Question 2: How often technologies used:

In the control group, one respondent indicated she used all technologies the same. Therefore, in counting numbers of uses, I will add in one for each technology for the control group for this question.

In overall uses of any technology, FirstSearch was used by 54% (7 of 13) of the

control group at least occasionally. It was used by 55% of the workshop group. About half of the groups, therefore, indicated they use FirstSearch.

The Internet was used by 69% of the control group. About 82% of the workshop group use the Internet.

The online catalog is used by 54% of the control group, and 55% of the workshop group.

Three participants from each group indicated they used the CD-ROM indexes.

The control group rated the Internet as the most often used technology, with the online catalog rated second and FirstSearch third overall.

The workshop group tied in their rating of the Internet and online catalog as their most-often used technology, with the Internet used overall more often. The online catalog and FirstSearch were both used, but the online catalog used more often.

3) Why technologies were not used:

Below is indicated which choice was chosen the most for each technology:

Online catalog:	Workshop group:	don't know how to use efficiently enough
	Control group: (tie):	don't know how/where to access;
		don't think it's useful for my needs
CD-ROM:	Workshop group:	don't know how/where to access
	Control group:	don't know how/where to access

FirstSearch:	Workshop group:	don't know how/where to access
	Control group: (tie)	don't know how/where to access;
		don't think it's useful for my needs
Internet:	Workshop group:	don't know how to use efficiently
	Control group:	don't know how to use efficiently

4) Why technologies used:

The most-often chosen answers were very similar between the two groups:

Online catalog:	Workshop group:	to see what library owns
	Control group:	to see what library owns
CD-ROM:	Workshop group:	to find articles
	Control group:	to find articles
FirstSearch:	Workshop group:	to find books and other materials
	Control group:	to find books and other materials
Internet:	Workshop group:	to explore in general (64%)
		to find material for classes/job (64%)
	Control group:	to explore in general (77%)
		to find material for classes/job (46%)
		to try out sites for students to use (46%)

5) Use of technologies in other settings:

The control group used technologies slightly more at another library or other environment, such as home.

6) Technologies not used at ACC:

Few respondents answered this question; one or two indicated "no".

7) Attitude towards technologies:

These are again strikingly similar between the two groups:

Very positive:	Workshop group:	45%
	Control group:	46%
Somewhat positive:	Workshop group:	27%
	Control group:	31%
Neutral:	Workshop group:	9%
	Control group:	8%

No respondent indicated a "somewhat negative" or "very negative" attitude.

8) Comments:

Workshop group commented that they wished they had more time to become more familiar with these technologies. Control group said these information technologies made their jobs easier. They also mentioned the need to increase the skills and lack of time to learn to use them effectively.

9) Type of employee/length of time at ACC:

The majority of respondents were full time faculty (workshop group 64%; control group 85%) who have been at ACC more than 10 years (workshop group 73%; control group 46%).

More respondents in the control group have been at ACC for 2 to 10 years (54%) than in the workshop group (0%).

Results of Faculty Interviews:

I interviewed 10 faculty members who indicated on the memo accompanying the post-test or control group survey that they were willing to be interviewed. A summary of results appears on following page, with discussion following.

Of those who agreed to be interviewed, two had not attended library workshops. One of those two, however, brings classes in more frequently than any other instructor for library instruction sessions. They range in time employed at ACC from a few months to more than 30 years. Some are current and past division chairs. The divisions represented are Business (four), English (two), Health Sciences (one), Sciences (one), Humanities (one) and an administrator who also teaches. Six are males; four are females.

On the surveys, their attitudes towards information literacy were "very positive" (3), "somewhat positive"(2) or "neutral"(3); two did not answer the question.

I spent about a half-hour with each person. I asked that they be as straightforward with their answers as possible. I was not looking for approval or "back-patting" for the library's efforts, but for honest thoughts and ideas on how we can improve our services to

the faculty and students. This information would be used for my thesis project as well as to improve my effectiveness in my job.

I explained that my premise was that information literacy is an important life-long skill for our students, and showed them the definition of information literacy in the Library Instruction brochure (see appendix). I said that I thought that faculty should also have information skills to encourage and teach students, since a key to the success of a student learning information literacy is faculty attitude, and that faculty could also use information skills for their own benefit. My method, I told them, was to do a pre- and post-test to determine changes in learning as well as interview some faculty to get specific ideas of their perceptions of the ACC Library's skills and services.

Below are the faculty's responses to the six interview questions. Some questions had more than one part.

1) Do you agree or disagree with my premise/the importance of information literacy? What do you think about it? Is it important for students? For faculty members?

All agreed that it is important for both faculty and students.

The coordinator of a new program on campus agreed that it was important for both students and faculty to know how to find information. She needs to know how to find information herself so she can show students, she said, and offer hands-on guidance.

Information skills will be a sought-after skill that faculty and students should add to their resumes, one new faculty member said. Employers will have the expectations that

potential employees should have information-finding skills, as much as computer skills and other job requirements.

A division chairperson, at ACC for more than 10 years, agrees that information skills are very important for students, and extremely important for faculty members.

"Definitely, yes," information literacy is important for students and for faculty, another long-time faculty member said. "It's very important for students to know all the resources of today": we don't just use print material anymore in doing research.

A long-time business faculty member who is very computer-oriented feels information literacy is "absolutely" important for students and faculty members. "No question" that it is important, the humanities professor said.

An English instructor agrees it is definitely important for students to know how to find information. It's important for faculty also, to evaluate their own teaching, stay updated and fresh in their field, he said.

Another English faculty member said that information literacy is one of the most important things a student can learn: "you can't keep all facts in your head." For faculty members, information literacy skills are important because faculty must keep up with students, especially in computer skills. However, many don't have time to learn the changing ways of doing things, she said.

An administrator who also teaches each semester said it is important for faculty and students to know how to find information: "It opens the door to more information - there's so much out there."

How do you keep up to date in your field? With new teaching techniques/ideas?

Journals, textbooks and web sites were mentioned often:

- Eight mentioned personal journal or newspaper subscriptions. Two cut out clippings to share with classes. Journals were from their professional associations or about their field.

- Five look through new textbooks. One uses the CD-ROMs included with the texts. One mentioned that textbook publishers provide articles on topics related to the textbooks.

- Three visit the web site of their professional organizations, for teaching ideas and news updates.

- A health sciences instructor said that new teaching techniques and ideas in her field are usually done person to person: a treatment technique is demonstrated.

- At least one attends staff development workshops on teaching techniques.

- Two have active practices in the business field they teach.

- Two English faculty read books, newspapers and journals in subject areas they are less familiar with, to stay current on topics students may write about.

- One instructor keeps updated in his field by taking graduate courses in subject areas he is less familiar with, to fill in gaps in his knowledge.

- The humanities professor also purchases books in his field, and maintains a small library in his office, lending books to students for their projects. He also uses bibliographies, interlibrary loan, textbooks and attends conferences.

- An administrator reads reports and data produced by other ACC offices or

SUNY, consults with colleagues at other community colleges, stays current with local, state and national news and higher education and economic trends through newspapers, radio and TV.

Few of the methods listed above are what we teach their students as ways to find information.

A long-time science instructor said "what is new and different is not necessarily better." He uses a combination of lecture, labs, video and simulations to teach his concepts; the techniques he uses are "not inferior to high-tech." For the introductory courses he teaches, he has a "well-defined curriculum" with rigidly defined scientific ideas. He feels his students don't need to access more information at the introductory level.

A long-time business instructor has changed his attitude after attending an Internet workshop I presented for faculty: he used to use print sources but now focuses on Internet sites as well as newspapers and magazines.

2) Do you feel you need to know how to find information? If so: what kinds?

Where do you do research/find information?

❑ Office ❑ ACC Lib. ❑Other library ❑ Don't ❑ Home

Some answers to this question were given in the previous question. All agreed they need to know how to find information; many rely on the Internet because of the convenience and speed.

Most instructors said they use their office or home personal computers to find information, or use libraries (college or public) near their homes. A science faculty

member gets information from the library or by searching the Internet in his office or at home, or uses a CD-ROM encyclopedia at home. He gets reference help when needed, he said.

A business professor who also is practices in his field finds information for his private practice, often using the Internet.

One English instructor said she feels it is difficult to keep up with the many ways to find information, but knows to ask librarians.

Do you ask your students to do research?

Most instructors do ask students to do research, though the longer-time faculty who teach introductory courses tend not to.

An English professor asks her students to do research, and tries to give them a sense of need for information, focusing on research as a lifelong process. To increase students' enjoyment of the research process, she asks them to choose topics of interest.

A new health sciences instructor said she will emphasize the importance of research and perhaps include it in clinical projects. Students tend to resist research, however, but she believes they should value it as a skill employers will look for.

An administrator who teaches freshman seminar courses does ask students to do some simple research.

A business teacher does not ask students to do in-depth research for most courses. He will do some research himself, or consult a reference librarian for more in-depth research. For one course, he requires students to work on a stock market project, in

which students track the successes of four companies during the semester.

Another business teacher asks students to write a short paper on subjects they are familiar with, though also offers them the option to tell their own story.

A science teacher may occasionally ask students to do research on a manufacturer but generally does not ask for research.

A business teacher uses her office computer and the library's indexes. In some courses, she does require students to look up software reviews, information on companies, and other topics beyond what was covered in class.

The humanities professor requires two research papers each semester, and finds many of his students are dependent on the Internet. Papers researched on the Internet contain "reduced information pieces" that don't have much depth, he observed.

3) If agree, how "information literate" do you consider yourself, on scale of 1-10? How would you rate your level of information skills? Do you find what you want? Do you know where to start?

Most responses were between "5" and "9," with an average of "7" among those who actually offered a rating:

- A business professor is most comfortable finding information with books and periodicals, and knows she can call a librarian for assistance. She'd rate her skills as a "5," more confident with print sources and less with new technologies.

- A science teacher considers himself to be a "9."

- The humanities professor estimated his knowledge to be a "5." He did recently

purchase a book on finding Internet information in his subject, and is learning to use the Web better.

- A new health science faculty member rates her information literacy skills as a "5." She has attended several library workshops in the last few months to increase her skills.

- A business professor has a "pretty clear" idea of how to find information, whether is on the Internet, reference books, or FirstSearch databases, rating it an "8."

- Another business professor has been able to find the basic information he's needed, and since taking an Internet workshop has even assisted other faculty in finding information. He currently does most information-finding on the Internet.

- Another business professor is also an avid user of the Internet, at work and home as well as his professional practice. He has also attended an Internet workshop this year at the library. His familiarity with other information technologies (online catalog, CD-ROM indexes and FirstSearch databases) has not changed in the last few months: on his pre-test in September and his post-test in March he indicated that he did not know how to use the online catalog well enough to make it worth his time, and was not aware of how or where to access the CD-ROM indexes and FirstSearch. He does not use periodical indexes, and instead subscribes to journals personally, he said. He thinks information is becoming more decentralized, not based at the library any more.

- An English professor rates himself as a 9.5 in information literacy skills. Generally feels he knows how to find information, for both his graduate course work and for topics related to his classes: finding book reviews, reading for class, using the Internet. He does research in his office, in other college libraries closer to his home, and sometimes

at home. He asks his students to do entry-level research (to find an article that answers a question they have) as well as more advanced research skills: (find a range of perspectives and evaluate what they find). He has learned a lot because of the many classes he's brought to the library and "I need to know for my students."

Another English professor feels confident she can find information on most subjects she regularly researches. She feels "less information literate" when it comes to the Internet, but knows she can get help if needed. She wishes she knew how to find information outside her area of expertise more quickly, to help students find information on topics.

An administrator rates himself a "5" on a scale of 10 in information literacy. He tends to do things the easiest way to save time, he admitted: to "call the librarians" if he has a question. He usually finds the information he wants and knows where to start, generally.

How would you rate your awareness of what the ACC Library offers?

1 (low) -- 10 (high)

Feelings of awareness ranged from 4 to 9, with an average of 6.6.

A business professor estimates she has "a good handle" on what the ACC Library has to offer, perhaps a "7 to 8."

An administrator said a "7 or 8" since in a general sense, though maybe not exactly: he felt he had a good idea overall of what types of materials and services the library had.

A new health sciences instructor was given a tour of the library by her division's liaison librarian when she first arrived, so feels "pretty familiar" with the library's offerings. She would like to be more familiar with the FirstSearch periodical databases and perhaps the Internet. She wanted to get to know the library's holdings so she could send students over and they'd spend their time productively. She uses the Internet the most often, and online catalog secondly.

A professor who has not brought students to the library or attended workshops rates his awareness of what the library has to offer as a "4." On the survey sent to the control group, he said he does not think the online catalog, CD-ROM periodical indexes, FirstSearch databases or the Internet (perhaps meaning access at the library) are useful resources for his needs. He uses the Internet to explore in general.

A long-time English professor feels she is aware of what the ACC Library has to offer, because she uses the library and its services: she brings classes in for library sessions each semester, attends library workshops and regularly borrows material from the library.

A business professor rates her awareness of what the ACC library offers as a 9, since she attends tours and library sessions with her students.

Did you ever take any library instruction (informal or in courses) in your education?

My readings have shown that instructors who have taken library research courses tend to enforce those concepts in their teaching. Since library instruction in higher education was not heavily emphasized until about 15 or 20 years ago, most faculty members at ACC have not received formal instruction in their educations.

A science professor has not taken formal library instruction courses, but did attend some summer institutes through SUNY that touched on research skills.

Two of the four business professors did receive formal library instruction during graduate school. Many years ago in college, another business professor believes he may have received a brief library instruction session, but nothing in-depth. Another considers himself self-taught in learning how to find information in his area of expertise. He uses standard business reference books such as Standard & Poor's directories and Moody's handbooks "all the time."

Neither of the English instructors recall taking formal library instruction sessions. In graduate school as a teaching assistant, one regularly brought his classes to the library and learned a lot along with his students. Another teacher purposely bought a house located within a one-mile radius of a public library.

The humanities professor has never taken a library skills class. "Information skills have never been modeled for me," he said. He realizes that research now is more complex now, so it would be good to learn more.

An administrator said he did not attend any formal library instruction program. He recalls that his college library had closed stacks: only seniors were allowed into the library stacks to browse!

Do you think it is appropriate for faculty to teach information skills in classes?

Faculty reactions to this question were mixed. The English faculty seemed most receptive to the idea. Some faculty thought it would take away from the amount of

content that could be taught in a course:

An administrator thought it is appropriate for faculty to teach information skills "if they know what they're doing, but it might get repetitive" if several classes taught similar skills.

The science professor thought that teaching information literacy is not necessarily the role of a science teacher, and may be "more appropriate for other courses."

The health science instructor thinks that library research should be taught, perhaps as part of English classes. The main limitations for her to learn more about information skills is lack of time and scheduling of workshops.

A business professor thought that teaching information skills would be a balance of losing class time versus the value of finding information: perhaps one could cover the content by having the students research it. Some faculty would object to being a partner in teaching information skills, she felt, but the library's new liaison program, in which each librarian is assigned a division, is a good step in working with faculty.

Another business instructor said it depends on the class; some just don't get into research projects. Perhaps offering library sessions on an as-needed basis could be useful.

A business professor does require research as well as computer use. He requires students to word-process papers, and use business programs on CD-ROM. In his upper-level courses, he expects students to have some previous computer experience. He doesn't see it as his role to teach computer or information skills.

An English professor noted that teaching information skills tend to fall traditionally into English classes, "but it ought to be part of every class," especially the concept of

evaluating information.

It is appropriate for faculty to teach information literacy skills "if they know what they're talking about, and if there's a reason for doing it," another English instructor said. It should be tied into an assignment.

A business professor thinks it is appropriate for faculty to teach information skills in classes. She used to personally give her classes tours, but with more technology in the library, now prefers the librarian does that.

The humanities professor thought that would be good use of class time, and felt that he would benefit by knowing information skills better himself.

4) If low, what would enhance how you learned? What are the main limitations for you in learning how to find information?

Lack of time was cited by at least five of the 10 as the main reason for not increasing information skills. Also, some information skills are not used often enough to become comfortable and time-saving, several mentioned:

A business instructor said the main limitations are time, "laziness" and stress. Over the summer, she hopes to spend some time exploring the Internet to become more proficient.

An English teacher said the limitations are not only time constraints but also willingness to ask for help. He tries to figure things out for himself, and learns shortcuts "all the time."

Another English instructor said that besides lack of time, her skills may get rusty in

using services or information sources she doesn't use often.

It is very important to increase the information skills of the faculty, agreed a business faculty member. The main limitations are lack of personal time and energy.

An administrator said he tends to use the shortest and quickest route to the information: usually, "call the librarian." Also, lack of follow-up after learning a skill may keep someone from practicing it enough to become comfortable. He suggested that after a workshop, librarians give attendees an assignment or do a follow-up call or session afterwards to help people practice their new skills and develop a habit. He, like most people, will file away notes from a workshop or conference with the best intentions of later reviewing and practicing it, but that rarely happens.

How could we increase motivation?

Most faculty had no quick answer to this question, and several agreed this was the most difficult to answer.

To increase faculty motivation to learn more about information skills, the health science instructor suggested offering an event with food to draw people to the library.

A business instructor said to increase faculty motivation, they "want to need to know."

An administrator said to increase motivation, librarians could choose presentation topics of strong interest to faculty: perhaps poll faculty on one thing they want to learn. Once over the learning curve, one becomes more efficient and has more time to sort through and evaluate information, he said. To motivate faculty, librarians may try to show

faculty that it is quicker and easier to do their own research. He compared information skills with setting up a spreadsheet: it takes time to set up and learn, but in the long run is much more efficient since it saves time and one is more likely to use it.

An English instructor said to increase motivation, the library could publicize new services for faculty to investigate. Another suggested that to increase motivation, faculty could continually design new classes and projects requiring research on their part.

Survival will be a motivation for some faculty, a business teacher said. Faculty will have to learn information skills to keep their jobs. In business education, "very little is coming through in paper information now." Much of the work is done with software, and most textbooks now come with CD-ROMs and Internet addresses.

How can I make it easiest to learn? **(Order of preference/combination?)**

- ❑ **one-to-one tutorial** ❑ **handouts**
- ❑ **workshops** ❑ **presentations at faculty meetings**
- ❑ **presentations at division meetings** ❑ **informal: call when you have a question**
- ❑ **computer-assisted instruction: tutorials online**
- ❑ **Other:** _____

Many faculty agreed that workshops and handouts used together are effective, as long as workshops are scheduled at a variety of times. Others preferred calling for help when needed. Several other ideas were also suggested:

Four business faculty said workshops are very effective, offered at a variety of times.

To make it easiest to learn, pairing together workshops and handouts are most effective, one said. She likes to have someone get her started with a sheet with basic step-by-step instructions.

Another suggested a different "one-two" approach: perhaps doing a presentation at a division meeting for an initial push of publicity about a service or for updates, followed up with personal contact or E-mail. He thought presentations at faculty meetings are "deadly."

Presentations at division meetings, which make people aware of offerings but do not allow hands-on exposure, and handouts, are effective, thought a third business professor. Calling when one has a question is useful also.

Short, 15- to 20-minute workshops or individual tutorials on specific topics might work well, the humanities professor suggested. Handouts could be useful if the faculty member is guided through them first to know how they relate to an information need. He has called the library when he had a question.

The health sciences instructor felt the library has been flexible about offering workshops at various times and many handouts. Workshops are an effective way to learn, especially small ones offering individual attention. Other effective ways could include computer-assisted instruction with tutorials online and handouts. Presentations at faculty meetings are less effective; the faculty would get bored and the group is too big, she said.

An English faculty member said that workshops, informally calling with a question and perhaps online tutorials may be effective ways to make it easier to learn. Division meetings and faculty meetings tend to be too busy, too general and not applicable to all

attending.

An English instructor suggested a current awareness service of some kind, helping faculty become familiar with what's changing and how: short bulletins or notices about new services, books, changes in research databases, tips on searching or new technologies arriving. He likes handouts and knowing there's someone available at the library to help.

A science professor felt a one-to-one tutorial or calling when he had a question could be effective. Workshops on Java and HTML to design web pages would be of interest, but possibly not in the realm of the library's offerings. Faculty could be motivated to learn more about information skills if the college had a web page.

Two business faculty often learn information skills by talking to colleagues and librarians. One actively teaches information skills to his officemate.

An administrator said that being proactive instead of reactive is best. The library should offer lots of outreach, he said. Perhaps a video would be appeal to some as a way to learn basic information skills.

A business instructor thought one-to-one tutorial sessions with faculty are too time-consuming for the librarians. Division meetings already run overtime with a packed agenda. Handouts by themselves are frustrating, but useful when the information is demonstrated at the same time. Presentations at faculty meetings may be useful to reach many people at once.

This long-time business instructor was not interested in using the Internet as an information tool until he attended a basic Internet skills workshop last semester at the library.

He drew a parallel in his attitude towards the Internet with his father-in-law's refusal many years ago to switch from hand-cranked telephones to dial telephones. Computers, this faculty member said, "were my dial telephone." But, "the workshop got me over the hurdle," giving him basic skills to get started. He now searches the Internet regularly and uses e-mail. As other technologies develop, "when I feel I need those things," he will investigate learning about them.

He realizes that if students and faculty don't learn now, they will be "behind the eight ball," and not competitive in the work world. Many year ago, he researched community needs for the college, surveying area employers on what skills are in demand. Now, employers demand computer skills.

5) Is there information you wish you knew how to find (or find better)?

Most feel they can find most information they need. Several stated that they find information they need "on the computer," so often do not need print information.

Several said that if they cannot find information, they call a reference librarian.

The humanities professor noted that he doesn't use some skills often enough "to feel facile -- it needs to be part of me, needs to be instinctual" before the skills are comfortable to use.

6) Overall perception of library/library instruction program/what you wish we did more of:

All expressed overall satisfaction with the library's services and materials, and felt

that most needs were being met, especially with the new liaison program:

An English faculty member's overall perception is that the library is more responsive and flexible, especially with the library liaison program instituted this year.

A science faculty member said that there's "nothing we're feeling the lack of" in the library.

The health sciences instructor feels the library has an adequate collection, a good physical layout, are "making a good effort to stay updated, and the staff is always helpful." More holdings for her program could be added with input from her staff.

A business professor said her overall perception of the library now, with a new director and building, is "excellent: it's comfortable, a good layout, friendly, helpful" staff. She would like to have more workshops, perhaps specific ones for the divisions' needs.

An English faculty member appreciates the increased communication of the librarians. After the English faculty liaison sent a recent message about newly arrived books, she went to the library, took a couple of books out and told students about them too. She suggested the library offer more subject specific workshops for students in higher level courses.

Chapter 4 Discussion of Results:

Overall Comments:

My questions were:

- What information literacy skills do faculty have now?

- What factors enhance the teaching of information literacy to the faculty at ACC? What would motivate faculty to learn more?

- As the instruction librarian at ACC, how can I use this case study to teach information skills more effectively to the faculty and staff?

Did the surveys and interview results answer my questions? Yes, they gave me a general sense of where the faculty stand. I discovered that many of our faculty do have gaps in knowledge about the library. A range of teaching approaches is best to increase these skills, as both the faculty and literature stated. All of the faculty consulted had neutral to positive attitudes towards information technology, which indicates they may be receptive to increasing their information skills.

Many of my results thoroughly surprised me. Through my reading, however, I found that our faculty are fairly typical in their information skills and behaviors, though apparently better-natured and more willing to learn than the faculty described in the literature.

Comparison of Pre-test and Post-test Results:

I was happy to find that, months later, most faculty used the information technology taught in the workshop. For instance, in the pre-test, faculty used the Internet three times to find information for their classes or job; this increased to seven in the post-test.

The most striking difference in the pre- and post tests was how use of all library technologies increased after workshops, from 16 to 22 total uses. Steffen, in her 1984 study about the results of DIALOG searching, also found that faculty trained in one information technology started using others also. Even though a faculty member may have taken an Internet workshop, her use of the online catalog or FirstSearch also increased.

There are several possible reasons. During workshops, I point out how to access all of these from their offices. In the pre-test, many indicated they did not know how to access these technologies. In the post-tests, more faculty knew how to access these.

Also, in workshops, I mention similarities in how the Internet, online catalog and FirstSearch work: all use some form of Boolean logic, truncation and subject headings. The faculty may be less intimidated by other information technologies once they realize that skills learned for one are transferrable to others. It's also possible but very optimistic to conclude that faculty may have realized that certain technologies are more appropriate than others for their information needs: to use FirstSearch or the online catalog instead of trying to find all information on the Internet.

Millson-Martula and Menon (1995) discovered that as familiarity with library services increases, the level of satisfaction does also. The attitudes of the faculty did not

significantly change, but remained positive in my surveys.

In comments in the pre- and post-tests, faculty stated that they wanted to update skills and wished they had more time to become familiar with the technologies introduced in the workshops. I hope other faculty also become motivated, possibly through peer pressure, as Steffen noted. I realize we should not just reply on word of mouth to increase peer pressure, but actively publicize information literacy concepts and offer exact ways to incorporate them into classes.

Comparing each set of the 11 pre- and post-tests, I note that confusion existed in my terminology: many checked off that they use CD-ROM indexes, but I am very sure few do, since these are located in the library and we see only students using them. I believe they actually use other electronic products, such as the college catalog CD-ROM or career exploration software available in the Career Services office.

Lack of time was often cited as the reason why they don't use information technologies more, which is consistent with the literature. It tells me how we can appeal to the faculty to be motivated to learn more: it can save them time and energy.

Comparison of Post-test and Control Group Survey Results:

As Millson-Martula and Menon (1995) state, one should not make assumptions about faculty but actually gather data. The survey results tell me we have more faculty members than I thought who use information technologies and view the library with more positive attitudes.

The survey also told me what we can easily clarify. Many faculty did not know

how to access the online catalog, FirstSearch or Internet. This could be solved through some simple e-mail, campus mail or campus newsletter announcements.

I did not expect to find that the use of information technologies would be so similar between the two groups: both groups tended to use the same technologies with about the same frequency. I was relieved to find most in the control group are more well-versed that I thought, even if they rarely appear in the library. I thought people did not attend workshops because they did not want to know, not because they knew.

The two groups shared positive attitudes: About half of the respondents were "very positive," about a third were somewhat positive and the remaining 8-9% were neutral. That is an important attitude for me to be aware of: faculty are receptive to what we can show them.

The biggest difference I discovered between the workshop and control groups was length of time at ACC. Most who attended the workshops have been at ACC more than 10 years. Those who did not attend workshops have been at ACC for two to 10 years. The ages of the faculty were fairly similar: 40s to 60s for both groups. Slightly more of the control group indicated they have used information technologies in other settings, so they may have learned to use these technologies at other colleges.

Results of the Interviews:

The greatest discrepancy between my assumptions and my findings were how faculty told me they found information: through colleagues, professional associations and direct subscription to professional journals.

I was surprised and disheartened initially, mentally scolding the faculty I interviewed because they weren't finding information "the right way": that is, the way I teach their students.

However, after reading Leckie's article, I realized that this was a perfect example of "expert vs. novice" research. I realized Leckie was very correct in observing that students and faculty approach information-finding in different ways because they are at different levels of familiarity with a subject area.

I also realized that I find information both ways: through professional journals, organizations and colleagues as the faculty do, as well as with the more traditional books/articles/Internet information sources we teach students.

Several themes recurred throughout the interviews:

• Faculty members obtain information in ways very different from the way we are teaching their students. They primarily use the Internet, their professional organizations, textbook publishers and each other. We teach the students to find information through books and articles, and then the Internet to fill in gaps.

This realization has changed my approach to teaching students. In most classes I speak to, I give a brief "information overview" lecture, describing the basic types of information and how to find them. I have now added another category ("people": librarians, faculty, people specializing in a subject, community and professional organizations), where most faculty focus their information-finding. I thinks it helps students reconcile how faculty may suggest students do research, and prepares students for the time when they are more "expert" researchers.

• Most faculty perceived themselves to find information successfully, a "7" on average. I'm not sure how accurate this could actually be because they may not know what relevant sources they are missing: they may not know what they don't know. Some faculty who I consider to be more information literate rated themselves lower than I thought, perhaps because they realize how much they do not know about finding information.

• Most said they would consult a librarian if they could not find information, though one teacher said he tries to find out for himself before giving up and asking a librarian. As we tell students, the more questions one asks, the faster one learns. We should mention this to faculty also, so they don't equate finding information with frustration or embarrassment.

• Most faculty did not receive any formal library instruction in their educations. Those that have are younger. Library instruction did not really develop as a regular part of education until about 15 years ago, and has grown as informational technology expands. This trend, I think, will change as the older faculty retire in the next few years and younger faculty with more information technology experience replace them. Meanwhile, we can target faculty more intensively than we have to teach them library skills.

• The majority of faculty interviewed, as with the survey groups, have an overall positive perception of the library and library instruction programs, even though they may not take advantage of it now. We can parlay this receptive attitude into better awareness of what the library can offer to them and their students.

• Many did not think that teaching information skills would fit into their courses or

was their role; other courses, perhaps English, could fulfill that role. This is a common attitude among United States faculty, my reading showed.

• All faculty interviewed agreed that information skills are important for students and faculty to have. Employees seek people with information skills, several mentioned, from business to health fields. However, not all thought their classes were the place to teach them: the "NIMBY" attitude cited by Maynard, Thomas, McCarthy, Hardesty and Jacobson and Valleley. Faculty do not want to give up classroom time teaching content to the "softer" skill of information-finding. I may be able to overcome that by helping faculty develop assignments in which students use information skills to find content.

• Most of the ACC faculty interviewed thought that the English division, more than others, should teach information skills in class. This agrees with Maynard's and Thomas' findings. The English faculty seemed to agree. This tells me that I could approach some of the receptive English faculty to incorporate information skills into their assignments in the upcoming academic year.

• If they were to include information skills into their courses or assignments, faculty stated they would have to know what they are doing. By offering information skills to them in many ways over the next year, I will give them opportunities to learn.

• Few faculty seem to use print material at the library. Many used professional periodicals received personally. Some seem to successfully bypass the library entirely, perhaps visiting to get videos for classes. This may be a matter of not being aware of what the library can offer, instead of a conscious choice. When I display reference books on subjects a class is studying, I often see surprise and interest on the instructor's face.

Most instructors ask students to do some research in classes, though fewer long-time ACC professors do. Long-time instructors at ACC may have been insulated against new pedagogical techniques such as active learning or lifelong learning skills. Newer instructors may realize employers look for students who know how to find information, so reinforce that skill.

Having a generally older faculty who have taught only at ACC could be seen as a disadvantage in that they were not exposed to information resources in other settings. I think it can be seen as an advantage because long-time ACC faculty show a very strong allegiance to the college and students and are motivated to serve them the best that they can.

Issue of "Information" vs. "Computers":

Several faculty strongly equated "information skills" with "computer skills" in the interviews. This poses two concerns to me:

- First, that faculty may use the Internet because it is convenient, not because it is the best quality or most appropriate way to find certain information, and may think it is comparable to information from books and articles; and

- Secondly, some faculty did not differentiate between the ideas of "using a computer" and "finding information." Obviously, computers have many purposes, requiring different skills: word processing requires keyboard skills; web page design requires some graphical design skills; finding relevant information on the online catalog or Internet requires searching strategies and critical thinking skills.

I want to encourage faculty to be more specific when they tell students that they found information "on the computer": Did they find it on a CD-ROM encyclopedia or the Internet at large? Was it a full-text article from a paid subscription database or an ad that popped up on the screen? Or was it a book record, from the online catalog?

I find Oberman's observations (1996) to be increasingly true: "Today it is not unusual to have students assert, to teacher and librarian alike, that the computer has given them all the information they need. There is something subtle at work here. The nature of the computer has convinced students that all relevant information can be retrieved solely through this medium" (318). Some faculty may believe this also, especially ones that may still be at a naive state with the technology and haven't thought about the differences between types of computer information. Perhaps including some technical explanation of information technologies in faculty workshops would help clarify that: to explain in general how a CD-ROM works, or how we access Internet information. I should not assume all faculty know these things.

However, I know some technologically-savvy faculty who rely on the Internet for information, and insist that students use it. But those faculty and students probably use the web very differently, judging from my faculty interviews and my observations of student behavior at the reference desk.

Many faculty members interviewed say they consult the web site of their professional organization, and find good and relevant information. If they use a search engine, they probably can judge good and bad information better than students.

Students, on the other hand, don't know to use a professional organization's web

site, and instead search the Internet at large. They then fall into the two major traps of the Internet: little quality control and a large amount of irrelevant information. I often intercede in the reference area after seeing students type in a couple of words into whichever general search engine pops up, rarely use search strategies to narrow results, then wander through dozens of results, not particularly noticing a difference between a valid site and an ad.

Because many faculty may intuitively find better-quality sites, I feel that some glorify the Internet and neglect mentioning its pitfalls or the use of other more reliably credible information sources, such as books and articles from scholarly journals. Judging from the surprised reactions of students in classes I talk to, I often see that instructors have not previously mentioned the lack of quality control on the Internet.

I hope to expand the faculty's understanding of how students approach research, now that I have a better idea what faculty do. Perhaps as a result they will consider a more balanced view of all types of information, print and non-print, and regularly evaluate the sources.

Motivating Faculty to Learn Information Skills:

Faculty members interviewed did not come up with one "magic" or even consistent factor that would motivate them to increase their information skills. The literature and my librarian colleagues concur with this. Many ongoing approaches are needed to reach the largest group of faculty, involving both general public relations (to convey the importance of increasing information skills) and teaching (to actually teach them skills).

I was happy to see in my reading that we were already doing some of those steps. I now have additional concrete actions to take to increase their information awareness. It will be an ongoing, challenging process that will certainly not reach or "convert" everyone. I should accept the reality that some will simply not see the need to the extent others may, and realize that it may take some time for the message to spread.

Many faculty interviewed cited lack of time and energy as reasons why they did not learn information skills more thoroughly, though they wholeheartedly agreed that these skills were very important. Knowing that faculty value their time, we can promote information skills as a way to save time and energy, so they "work smarter not harder." One does not have to reinvent the wheel when creating assignments, looking for active teaching techniques, or making recommendations to a committee on a college issue.

ACC's faculty culture seemed to agree with Hardesty's findings (1995) for community college teachers: "Heavy teaching loads, perhaps more than research requirements, may lead to a perception of a lack of time and related stress since those faculty having the heaviest teaching loads -- community college faculty -- are most likely to indicate they plan to retire early: 49 percent....However, a study...revealed that faculty themselves...basically do what they want in allocating their time among their various responsibilities...Real or perceived, lack of time is among the constraints frequently given by faculty for resisting change, including participation in bibliographic instruction" (353). In other words, faculty have a some control over how they spend their time. They could make time to learn information skills if motivated.

Lack of time may disguise faculty's actual personal anxiety over the challenge of

learning new ideas and techniques, Hardesty noted. Realizing that faculty reluctance to incorporate information skills may be based in anxiety, we can offer try to some instruction in a supportive, self-paced atmosphere.

I can make it easier for faculty to learn in a variety of ways, the interviews and readings indicated. A mix of workshops with follow-up sessions, handouts with specific directions, occasional news bulletins through E-mail or the campus newsletter about new services or tips, learning along with the class during library instruction sessions, and one-to-one appointments seemed to be the most useful and would reach the largest range of faculty.

Teaching information literacy skills to faculty is similar to getting enough exercise, I think: we know it's good for us, but probably don't take the time to do it. As with exercise, one must be convinced it is better to do it than not. The less inconvenient and painful we can make learning information skills, the more likely faculty are to participate. They might even enjoy their new skills once they reach a certain level of expertise, and convince others to join in.

All of the faculty members interviewed were satisfied with the library and its services overall. I hope that by trying various ways to familiarize themselves more with the information skills, their satisfaction will increase, they will save time and energy and pass the benefits of these skills on to students.

Conclusions:

My surveys and interviews have given me a good picture of the state of the faculty's information skills and their attitudes towards the library.

I experienced two major realizations in my research and reading:

1) Faculty find information very differently than students. Faculty, as experts in their field, tend to use their professional organizations and colleagues as major sources of information, bypassing the traditional library tools. Students, as novice researchers without professional networks and knowledge, must rely on more methodical, traditional library tools such as library catalogs and periodical indexes to find information.

I think librarians should increase faculty awareness of this discrepancy in research styles. We should encourage the faculty to familiarize themselves again with the "novice" research approach, so students asking for guidance receive accurate answers. We should, of course, continue to publicize that librarians are available to offer basic or in-depth information instruction to classes working on research projects. The faculty members should always attend library instruction sessions for their classes, to reinforce the value of the session to their classes as well as to learn themselves.

2) The faculty at Adirondack Community College is typical of college faculty overall in lack of awareness of information skills, according to the literature and to anecdotal evidence from other librarians. What I discovered in my interviews and surveys tends to be true for faculty in two-year and four-year colleges and universities across New York and the United States.

Because of this, librarians at ACC can more quickly learn from the successes of other librarians, and have a much better idea of where to focus energies in teaching information skills to faculty. To put what I have learned into action, I recommend ACC librarians take these steps:

- We need to be more proactive and persistent in publicizing the library's services, judging from the faculty's lack of awareness of basic services and information technology tools. I realize we focus on teaching students and often overlook the faculty, assuming they already know about these services and how to use them. Many don't know.

- We can motivate faculty to learn information skills by increasing their awareness of the benefits. For both faculty and students, strong information literacy skills can save time and effort, increase the quality, effectiveness and enjoyment of work, and increase employability, job security and perhaps income.

- Faculty learn best in a variety of ways, so we should offer a range of instructional opportunities, from handouts and workshops to individual appointments. The literature offers many concrete ideas. These learning opportunities should be offered on an ongoing basis. We should be aware that faculty at first may resist change, experience anxiety and not understand the underlying technology.

- We should make it as easy as possible for faculty to incorporate information skills into classes, by offering specific assignment and project ideas to help them get inspired. I could start by working with receptive faculty from the English division and others who have talked to me recently about incorporating information skills more thoroughly into their classes.

I realize that ACC is taking the first few steps in creating an information literacy program, and much work remains to make it successful. My long-term goal is that faculty, students and others in the ACC community see information literacy as a set of essential, relevant and desirable educational skills. I would like our faculty and graduates to use these skills naturally and comfortably in every aspect of their lives, to use the power of information to help them reach their goals.

Recommendations for Future Research:

It would be very interesting to study several areas in more depth:

- Does ACC's culture support ongoing learning? Is it a learning organization? This is essential for creating permanent change and an atmosphere for ongoing improvement. Perhaps some divisions are more learning-oriented than others; they could be used as models. I think the culture of ACC is changing as new instructors with more active teaching styles join the faculty.

- What additional factors motivate faculty to increase information literacy skills? My reading and research indicate that faculty are motivated if they can save time and effort, increase their job security in the face of changing enrollments, and become more effective teachers. More primary motivators may be found.

- In two or three years, how successful will our efforts be to actively integrate information skills into the curriculum? It would be interesting to study actual changes in faculty information skills after a time of more proactive faculty outreach efforts by librarians.

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Appendix:

• Cover Letters and Survey Instruments:

Pre-Workshop Skill Survey: Pre-test to Workshop Attendees

Cover Letter to Workshop Attendees for Post-test/interview

Cover Letter for Control Group (Workshop Non-attendees)/Interview Request

Information Resources Survey to Control Group

Interview Questions

• Aggregate Raw Survey Results:

Results of Pre-test: Pre-Workshop Skill Survey

Results of Post-test: Pre-Workshop Skill Survey

Results of Information Resources Survey to Control Group

• Supporting Documentation:

Library Instruction: Services and Programs,

an Informational Brochure for ACC Faculty

Pre-Workshop Skill Survey

Your name _____ Today's date: _____

Please assist us in evaluating the effectiveness of our workshops by taking a moment to fill out the survey below. Thank you! Please return this to Joyce Miller at the Library.

1) Please check any of the information technologies listed below that you currently use for academic purposes:

❑ Online catalog ❑ CD-ROM indexes ❑ FirstSearch databases

❑ The Internet ❑ Other: _____

2) Of those you checked off above, please rank them according to how *often* you use them.

- Use a **1** to indicate used the most, **2** for second most often, etc.
- If you do not use them, leave the space blank.

___ Online catalog ____CD-ROM indexes ___ FirstSearch databases

___ The Internet ___ Other: _____

3) Of those you do **not** use, why do you not use them?

Online catalog
❑ I do not know how or where to access it.
❑ I do not know how to use it efficiently enough to make it worth my time
❑ I do not think it is a useful resource for my needs.
❑ Other:

CD-ROM indexes
❑ I do not know how or where to access them.
❑ I do not know how to use them efficiently to make it worth my time
❑ I do not think they are useful resources for my needs
❑ Other:

FirstSearch databases
❑ I do not know how or where to access them.
❑ I do not know how to use them efficiently to make it worth my time
❑ I do not think it is a useful resource for my needs.
❑ Other:

The Internet
❑ I do not think it is a useful resource for my needs.

❑ I do not know how to use it efficiently to make it worth my time
❑ I do not know how or where to access it.
❑ Other:

4) Of those you use for your classes or job, why do you use them?

Online catalog
❑ To see what the library owns on a topic
❑ To find items to put on reserve
❑ To plan which videos to show to my classes
❑ To develop bibliographies for my classes
❑ Other: _____

CD-ROM indexes
❑ To find articles for my classes
❑ To try out databases that I will ask my students to use
❑ Other: _____

FirstSearch databases
❑ To find articles for my classes
❑ To find books or other material for my classes/job
❑ To try out databases that I will ask my students to use
❑ To find Internet addresses
❑ To find books reviews
❑ Other: _____

The Internet
❑ To explore in general
❑ To find material for my classes/job
❑ To try out sites I will ask my students to use
❑ Other: _____

5) Which of these have you used in other colleges or environments?

❑ Online catalog ❑ CD-ROM indexes ❑ FirstSearch databases
❑ The Internet ❑ Other: _____

6) Are there any listed above that you no longer use now that you are at ACC?

_____

If not, why not? _____

7) In general, how would you describe your attitude towards using these types of information technologies?

❑ Very positive ❑ Somewhat positive ❑ Neutral ❑ Somewhat negative ❑ Very negative

8) Please add any other comments:_____.

9) Please tell us something about yourself. Check any that apply:

❑ full-time faculty ❑ part-time or adjunct faculty ❑ full time staff ❑ part-time staff
Length of time at ACC: ❑ 0-2 years ❑ 2-5 years ❑ 5-10 years ❑ over 10 years

Memo

To: Faculty who have attended workshops
From: Joyce Miller, Reference and Instruction Librarian
Date: February 27, 1998
Re: Request for your assistance

Earlier this academic year, you attended a workshop I presented. You may recall filling out a "Pre-Workshop Skill Survey."

To discover the long-term effect of the workshop, if any, I would be most appreciative if you could **take a minute** now to fill out the attached **"post test"** (the pre-test -- same survey, only later). Your *extreme honesty* is most appreciated.

Please return the survey to me in the enclosed envelope as soon as is convenient.

If you are also interested in allowing me to **interview you briefly** (30 mins.) about effective teaching of information skills, please indicate here. I am using this data as the basis for my thesis for the M.A.L.S.* program at SUNY Plattsburgh.

❑ Yes, I would share my thoughts on teaching information skills effectively.
❑ No, thanks.

I thank you in advance for your assistance in our research. You are helping us improve our library's services and effectiveness. It should pay off in future workshops!

* M.A.L.S.: I anticipate completing this degree by July: Master of Art in Liberal Studies, with a concentration in Administration and Leadership. I am writing and researching my thesis this semester: "Factors Enhancing the Teaching of Information Literacy Skills to Adirondack Community College Faculty and Staff."

Memo

To:
From: Joyce Miller, Reference and Instruction Librarian
Date: February 27, 1998
Re: Request for your assistance

I am conducting a survey among a range of faculty members to assess the need for information skills instruction among the ACC faculty.

I would greatly appreciative if you could take a minute to fill out the attached **survey**. Your *extreme honesty* is most appreciated. Please return the survey to me in the enclosed envelope as soon as is convenient.

If you are also interested in allowing me to **interview you briefly** (30 mins.) about effective teaching of information skills, please indicate below. I am using this data as the basis for my thesis for the M.A.L.S.* program at SUNY Plattsburgh.

❑ Yes, I would share my thoughts on teaching information skills effectively.
❑ No, thanks.

I thank you in advance for your assistance in my research. You are helping us improve our library's services and effectiveness!

* M.A.L.S.: I anticipate completing this degree by July: Master of Art in Liberal Studies, with a concentration in Administration and Leadership. I am writing and researching my thesis this semester: "Factors Enhancing the Teaching of Information Literacy Skills to Adirondack Community College Faculty and Staff."

Information Resources Survey

Your name _____ (optional; will be kept confidential)
Today's date: _____

Please assist us in evaluating the effectiveness of our library resources by taking a moment to fill out the survey below. Thank you! Please return this to Joyce Miller at the Library.

1) Please check any of the information technologies listed below that you currently use for academic purposes:

❑ Online catalog ❑ CD-ROM indexes ❑ FirstSearch databases

❑ The Internet ❑ Other: _____

2) Of those you checked off above, please rank them according to how *often* you use them.
- Use a **1** to indicate used the most, **2** for second most often, **3**..., etc.
- If you do not use them, leave the space blank.

___ Online catalog ____CD-ROM indexes ___ FirstSearch databases

___ The Internet ___ Other: _____

3) Of those you do **not** use, why do you not use them?

Online catalog
❑ I do not know how or where to access it.
❑ I do not know how to use it efficiently enough to make it worth my time
❑ I do not think it is a useful resource for my needs.
❑ Other:

CD-ROM indexes
❑ I do not know how or where to access them.
❑ I do not know how to use them efficiently to make it worth my time
❑ I do not think they are useful resources for my needs
❑ Other:

FirstSearch databases
❑ I do not know how or where to access them.
❑ I do not know how to use them efficiently to make it worth my time
❑ I do not think it is a useful resource for my needs.
❑ Other:

The Internet
❑ I do not think it is a useful resource for my needs.
❑ I do not know how to use it efficiently to make it worth my time
❑ I do not know how or where to access it.
❑ Other:

4) Of those you use for your classes or job, why do you use them?

Online catalog	❑ To see what the library owns on a topic ❑ To find items to put on reserve ❑ To plan which videos to show to my classes ❑ To develop bibliographies for my classes ❑ Other: _____
CD-ROM indexes	❑ To find articles for my classes ❑ To try out databases that I will ask my students to use ❑ Other: _____
FirstSearch databases	❑ To find articles for my classes ❑ To find books or other material for my classes/job ❑ To try out databases that I will ask my students to use ❑ To find Internet addresses ❑ To find books reviews ❑ Other: _____
The Internet	❑ To explore in general ❑ To find material for my classes/job ❑ To try out sites I will ask my students to use ❑ Other: _____

5) Which of these have you used in other colleges or environments?

❑ Online catalog ❑ CD-ROM indexes ❑ FirstSearch databases

❑ The Internet ❑ Other: _____

6) Are there any listed above that you no longer use now that you are at ACC?

_____

If not, why not? _____

7) In general, how would you describe your attitude towards using these types of information technologies?

❑ Very positive ❑ Somewhat positive ❑ Neutral ❑ Somewhat negative ❑ Very negative

8) Please add any other comments: _____

9) Please tell us something about yourself. Check any that apply:

❑ full-time faculty ❑ part-time or adjunct faculty ❑ full time staff ❑ part-time staff

Length of time at ACC: ❑ 0-2 years ❑ 2-5 years ❑ 5-10 years ❑ over 10 years

Thank you!

Interview questions:

Thesis topic: "Factors Enhancing the Teaching of Information Literacy to ACC Faculty and Staff"

- My job: - library instruction program: faculty, students, staff (aware it exists?)
- Premise:
  - Information literacy is important life-long skill for our students
    (Lib. Instruction brochure)
- Faculty should also have these skills to encourage and teach students
  - train the trainers; key to success: faculty attitude; also: for own use
- Method: Pre/post-test to determine changes in behavior +
  interviews to sample faculty perceptions

Questions: (Honest thoughts!!)

1) Do you agree or disagree with my premise/the importance of information literacy? What do you think about it?

- Is it important for students?
- For faculty members?
- How do you keep up to date in your field? With new teaching techniques/ideas?

2) Do you feel you need to know how to find information?

- If so: what kinds?
- Where do you do research/find info.?
  ❑ Office ❑ ACC Lib. ❑Other library ❑ Don't ❑ Home
- Do you ask your students to do research?

3) If agree, how "information literate" do you consider yourself, on scale of 1-10?

How would you rate your level of information skills?

- Do you find what you want? Do you know where to start?

How would you rate your awareness of what the ACC Library offers?
1 (low) -- 10 (high)

- Did you ever take any library instruction (informal or in courses) in your education?
- Do you think it is appropriate for faculty to teach information skills in classes?

4) If low, what would enhance how you learned?

- What are the main limitations for you in learning how to find information?
- How could we increase motivation?
- How can I make it easiest to learn? (Order of preference/combination?)

❑ one-to-one tutorial
❑ handouts
❑ workshops
❑ presentations at faculty meetings
❑ presentations at division meetings
❑ informal: call when you have a question
❑ computer-assisted instruction: tutorials online
❑ Other: _____

5) Is there information you wish you knew how to find (or find better)?

6) Overall perception of library/library instruction program/what you wish we did more of:

Results of Pre-test:
Pre-Workshop Skill Survey

Your name _____ Today's date: _____

Please assist us in evaluating the effectiveness of our workshops by taking a moment to fill out the survey below. Thank you! Please return this to Joyce Miller at the Library.

*[Note: Most frequent answers are in **boldface.** Not all respondents answered each question.]*

1) Please check any of the information technologies listed below that you currently use for academic purposes:

❑ Online catalog 3 ❑ CD-ROM indexes 2 ❑ FirstSearch databases 4

❑ **The Internet 7** ❑ Other: _____

2) Of those you checked off above, please rank them according to how *often* you use them.
- Use a **1** to indicate used the most, **2** for second most often, etc.
- If you do not use them, leave the space blank.

_1,1,2_ Online catalog _1,2__CD-ROM indexes _1, 2, 2__ FirstSearch databases

_1,1,1,1,1__ The Internet __ Other: _____

3) Of those you do **not** use, why do you not use them?

Online catalog
- ❑ I do not know how or where to access it. 2
- ❑ **I do not know how to use it efficiently enough to make it worth my time: 4**
- ❑ I do not think it is a useful resource for my needs.
- ❑ Other: haven't needed it yet: 1

CD-ROM indexes
- ❑ **I do not know how or where to access them. 6**
- ❑ I do not know how to use them efficiently to make it worth my time 2
- ❑ I do not think they are useful resources for my needs
- ❑ Other:

FirstSearch databases
- ❑ **I do not know how or where to access them. 5**
- ❑ I do not know how to use them efficiently to make it worth my time 1
- ❑ I do not think it is a useful resource for my needs.
- ❑ Other: haven't needed it yet - 1

The Internet
- ❑ I do not think it is a useful resource for my needs.
- ❑ **I do not know how to use it efficiently to make it worth my time: 3**
- ❑ I do not know how or where to access it. 2
- ❑ Other:

4) Of those you use for your classes or job, why do you use them?

Online catalog
- ❑ **To see what the library owns on a topic 3**
- ❑ To find items to put on reserve
- ❑ To plan which videos to show to my classes 2
- ❑ To develop bibliographies for my classes
- ❑ Other: _____

CD-ROM indexes
- ❑ **To find articles for my classes 1**
- ❑ To try out databases that I will ask my students to use
- ❑ **Other: _to identify colleges & programs available - 1**

FirstSearch databases
- ❑ **To find articles for my classes 3**
- ❑ **To find books or other material for my classes/job 3**
- ❑ To try out databases that I will ask my students to use
- ❑ To find Internet addresses
- ❑ To find book reviews 1
- ❑ Other: _____

The Internet
- ❑ **To explore in general 5**
- ❑ To find material for my classes/job 3
- ❑ To try out sites I will ask my students to use 4
- ❑ Other: ____for career & college info. - 1

5) Which of these have you used in other colleges or environments?

❑ Online catalog 1 ❑ CD-ROM indexes 3 ❑ FirstSearch databases 3

❑ **The Internet 6** ❑ Other: _____

6) Are there any listed above that you no longer use now that you are at ACC?

_____no - 1_____

If not, why not? _____

7) In general, how would you describe your attitude towards using these types of information technologies?

❑ **Very positive** 5 ❑ Somewhat positive 3 ❑ Neutral 2 ❑ Somewhat negative 0 ❑ Very negative 0

8) Please add any other comments:

I need to know more!
New to this job; want to learn what resources are available to me.
I wish to learn more about these technologies so I can enhance my skills.

9) Please tell us something about yourself. Check any that apply:

❑ **full-time faculty - 9** ❑ part-time or adjunct faculty 1 ❑ full time staff 1 ❑ part-time staff

Length of time at ACC: ❑ 0-2 years 3 ❑ 2-5 years ❑ 5-10 years ❑ **over 10 years - 8**

Results of Post-test:
Pre-Workshop Skill Survey

1) Please check any of the information technologies listed below that you currently use for academic purposes:

❑ Online catalog 6 (27%) ❑ CD-ROM indexes 2 (9%) ❑ FirstSearch databases 6 (27%)

❑ **The Internet 8 (36%)** ❑ Other: _____

2) Of those you checked off above, please rank them according to how *often* you use them.
- Use a **1** to indicate used the most, **2** for second most often, etc.
- If you do not use them, leave the space blank.

1,1,1,1,2,2	Online catalog (6 use)	55%
1,3,3	CD-ROM indexes (3 use)	27%
1,1,2,2,2,3	FirstSearch databases (6 use)	55%
1,1,1,1,2,2,3,3,4	**The Internet (9 use)**	82%
0	Other: _____	

3) Of those you do **not** use, why do you not use them?

Online catalog 18%
- ❑ I do not know how or where to access it. 1
- ❑ **I do not know how to use it efficiently enough to make it worth my time 2**
- ❑ I do not think it is a useful resource for my needs.
- ❑ Other: haven't had the need yet - 1

CD-ROM indexes 36%
- ❑ **I do not know how or where to access them. 4**
- ❑ I do not know how to use them efficiently to make it worth my time 1
- ❑ I do not think they are useful resources for my needs 1
- ❑ Other: - haven't had the need yet - 1
  - just ones in Career Library - 1

FirstSearch databases 18%
- ❑ **I do not know how or where to access them. 2**
- ❑ I do not know how to use them efficiently to make it worth my time.
- ❑ I do not think it is a useful resource for my needs. 1
- ❑ Other: - cannot access these from computer in my office - 1

The Internet 9%
- ❑ I do not think it is a useful resource for my needs.
- ❑ **I do not know how to use it efficiently to make it worth my time 1**
- ❑ I do not know how or where to access it.
- ❑ Other:

4) Of those you use for your classes or job, why do you use them?

Online catalog	❑ **To see what the library owns on a topic 5**	45%
	❑ To find items to put on reserve	
	❑ To plan which videos to show to my classes 3	27%
	❑ To develop bibliographies for my classes	
	❑ Other: _1; _to teach class to do research - 1 _____	
CD-ROM indexes	❑ **To find articles for my classes 3**	27%
	❑ To try out databases that I will ask my students to use	
	❑ Other: _1; _view college catalogs - 1 _____	
FirstSearch databases	❑ To find articles for my classes 2	
	❑ **To find books or other material for my classes/job 5**	45%
	❑ To try out databases that I will ask my students to use 1	
	❑ To find Internet addresses 2	
	❑ To find book reviews 2	
	❑ Other: ___to teach class to use - 2_____	
The Internet	❑ **To explore in general 7**	64%
	❑ **To find material for my classes/job 7**	64%
	❑ To try out sites I will ask my students to use 2	
	❑ Other: _2; ___Research - 1_____	

5) Which of these have you used in other colleges or environments?

❑ Online catalog 4 ❑ CD-ROM indexes 3 ❑ FirstSearch databases 1

❑ **The Internet 5** ❑ Other: _____

6) Are there any listed above that you no longer use now that you are at ACC? No - 2
If not, why not? _____

7) In general, how would you describe your attitude towards using these types of information technologies?

❑ **Very positive 5 (45%)** ❑ Somewhat positive 3 (27%) ❑ Neutral 3 (9%)
❑ Somewhat negative ❑ Very negative

8) Please add any other comments:

In most instances, I think time and lack of familiarity limit my use of these information technologies.

I wish I had time to explore and become proficient with technologies!

Joyce Miller did an excellent job in showing me how to use the WorldCat database, which is part of the FirstSearch databases.

9) Please tell us something about yourself. Check any that apply:

❑ **full-time faculty 7 (64%)** ❑ part-time or adjunct faculty 1 ❑ full time staff 3 ❑ part-time staff

Length of time at ACC: ❑ 0-2 years 3 ❑ 2-5 years ❑ 5-10 years ❑ **over 10 years - 8 (73%)**

Results of Information Resources Survey to Control Group

Notes on results:

- Based on 13 responses from surveys sent to faculty and administrators who have not attended workshops in at least a year, or who seem to visit library rarely

- Most-often chosen responses are in boldface.

1) Please check any of the information technologies listed below that you currently use for academic purposes:

❑ Online catalog (8) (30%) ❑ CD-ROM indexes (3) ❑ FirstSearch databases (6) (22%)

❑ **The Internet (9) (30%)** ❑ Other: ___None: (1)_____

2) Of those you checked off above, please rank them according to how *often* you use them.

- Use a **1** to indicate used the most, **2** for second most often, **3**..., etc.
- If you do not use them, leave the space blank.

The Internet:	**rated 1 (6 times) rated 2 (2 times)** + 1*	9; 61%
Online catalog	rated 1 (3 times) rated 2 (twice) rated 3 (once) + 1*	7; 46%
FirstSearch databases:	rated 1 (once), rated 2 (four times) rated 3 (once) +1*	7; 46%
CD-ROM indexes:	rated 2 (once), 3 (twice) + 1*	4; 30%
Other:		

*one reply: "all the same amount"

3) Of those you do **not** use, why do you not use them?

Online catalog
- ❑ **I do not know how or where to access it. (3)** 23%
- ❑ I do not know how to use it efficiently enough to make it worth my time
- ❑ **I do not think it is a useful resource for my needs. (3)** 23%
- ❑ Other:

CD-ROM indexes
- ❑ **I do not know how or where to access them. (6)** 46%
- ❑ I do not know how to use them efficiently to make it worth my time (1)
- ❑ I do not think they are useful resources for my needs (2)
- ❑ Other: haven't taken time (1)

FirstSearch databases
- ❑ **I do not know how or where to access them. (2)** 15%
- ❑ I do not know how to use them efficiently to make it worth my time (1)
- ❑ **I do not think it is a useful resource for my needs.(2)** 15%
- ❑ Other: (1; no further explanation)

The Internet
- ❑ I do not think it is a useful resource for my needs. (2)
- ❑ **I do not know how to use it efficiently to make it worth my time (3)** 23%
- ❑ I do not know how or where to access it.
- ❑ Other:

4) Of those you use for your classes or job, why do you use them?

Online catalog	❑ **To see what the library owns on a topic (7)**	54%
	❑ To find items to put on reserve (1)	
	❑ To plan which videos to show to my classes	
	❑ To develop bibliographies for my classes	
	❑ Other: _____	
CD-ROM indexes	❑ **To find articles for my classes (2)**	15%
	❑ To try out databases that I will ask my students to use	
	❑ Other: _____	
FirstSearch databases	❑ To find articles for my classes (4)	31%
	❑ **To find books or other material for my classes/job (6)**	46%
	❑ To try out databases that I will ask my students to use (1)	
	❑ To find Internet addresses (1)	
	❑ To find books reviews (1)	
	❑ Other: _____	
The Internet	❑ **To explore in general (10)**	77%
	❑ To find material for my classes/job (6)	46%
	❑ To try out sites I will ask my students to use (6)	46%
	❑ Other: 1- I can use it from my office or home	
	1- To try sites students refer to	

5) Which of these have you used in other colleges or environments?

❑ **Online catalog (6)** ❑ CD-ROM indexes (3) ❑ FirstSearch databases (4)
❑ The Internet (3) ❑ Other: _None (2)_____

6) Are there any listed above that you no longer use now that you are at ACC? _No (1)_
If not, why not? _(no responses)_____

7) In general, how would you describe your attitude towards using these types of information technologies?

❑ **Very positive (6)** (46%) ❑ Somewhat positive (4) (31%) ❑ Neutral (1) (8%) ❑ Somewhat negative ❑ Very negative

8) Please add any other comments:

"Doing research and looking for teaching ideas is so much easier with these technologies."
"I need to increase my skills in this area. I find it difficult during first applications to know capability of various sources."
"I need time to make sure I know how to use these things effectively, I know you caught me."
"Sorry to be of virtually no help."

9) Please tell us something about yourself. Check any that apply:

❑ **full-time faculty (11)** (85%) ❑ part-time or adjunct faculty (2) ❑ full time staff ❑ part-time staff

Length of time at ACC: ❑ 0-2 years ❑ 2-5 years (2) ❑ 5-10 years (5) ❑ **over 10 years (6)** (46%)

Our goal: Information literacy

ACC's library instruction program emphasizes **information literacy**, which is:

- knowing **when** information is needed,
- knowing **how** to find information,
- **evaluating** the information using **critical thinking** skills and then
- **using** the information appropriately.

The U.S. Department of Labor, college and university reaccreditation organizations such as Middle States and several other key agencies state that strong information literacy skills are increasingly required for success in education, careers and life.

By collaborating with librarians to plan effective assignments and library instruction sessions, ACC faculty can help students learn to use the power of information with more ease and less effort. They will be better prepared for their futures in a rapidly changing, information-driven world.

The learning experience is enhanced with the new Scoville Learning Center's open, bright Library spaces and new computerized Library Instruction Room.

Library Hours

Monday through Thursday	**8 a.m. - 10 p.m.**
Friday	**8 a.m. - 4 p.m.**
Saturday	**9 a.m. - 1 p.m.**
Sunday	**5 p.m. - 9 p.m.**

Hours vary during holidays, summer semesters and college breaks. For general library information & hours, call: **(518) 743-2260**. To reach the Reference Desk, call 743-2200, ext. 562.

◆ Liaison librarians:

Contact the librarians listed below with your questions on finding or using print or electronic information sources for these subject areas, or to suggest purchases for the library:

Technology, Education, general topics:
Connie Bakker e-mail: bakkerc ext. 261

Nursing and Allied Health
Jennifer Chillrud e-mail: chillruj ext. 405

Literature, English, Art, Music:
Suzanne Delman e-mail: delmans ext. 405

Social Sciences, Math, Engineering, Computer Science:
Walt Hagen e-mail: hagenw ext. 562

Business, Travel & Tourism, Science
Joyce Miller e-mail: millerja ext. 485

Criminal Justice, Physical Education, Foreign Languages:
Teresa Ronning e-mail: ronningt ext. 540

All non-print media (videos, CDS, etc.)
Dave Ofiara e-mail: ofiarad ext. 484

Library Instruction

Services and Programs Promoting ***Information Literacy*** *to the ACC Community*

An Informational Brochure for ACC Faculty

We offer several types of library instruction services...

◆ **For faculty:**

• Assistance in developing your course's **research assignments**, to ensure that the library's resources and services meet your students' needs and reinforce information literacy skills. For ideas, see the new handout ***Creating Successful Library Research Assignments: Guidelines for Faculty.***

• **Workshops** are offered regularly on searching the online catalog, the Web, FirstSearch databases, LEXIS-NEXIS and other services. The library's print and electronic resources continually change and grow.

• For **individual tutorial sessions, library tours or consultations for research questions**, contact your division's liaison librarian (listed on back of this brochure) or Reference and Instruction Librarian Joyce Miller.

◆ **For students:**

• **library orientation sessions** with a short lecture and active learning exercises in using the online catalog, periodical indexes and Web resources, for one or two classes, focusing on a specific assignment;

• **subject-specific sessions** customized to the exact research needs of your classes, with **workshops or demonstrations** for classes on the online catalog, searching the Web or specialized databases available from the library's home page;

• **Library Research Methods** (LIB 188), a two-credit introduction to college-level research skills, offered each semester.

• In addition, many **library resource handouts** are available to guide students in their research. (See selected list on opposite page.)

Here's how...

- Contact Reference and Instruction Librarian Joyce Miller for **ideas** on how information literacy skills and critical thinking can be incorporated into your syllabus.
- Contact the Reference and Instruction Librarian to arrange a session for your class ***at least* two weeks** in advance to allow for proper preparation. Have several possible **dates** available. Slots fill up quickly; plan ahead! Sessions take place in the computerized Library Instruction Room (Rm. 325) in the Scoville Learning Center.
- Information instruction works best when it is tied to an **assignment**. Sessions later in the semester after students are familiar with their research projects are most effective.
- Send a **copy of your research assignments** to your division's liaison librarian so the reference librarians will be aware of and prepare for upcoming student questions.
- Consider a second **follow-up session** after students have had some experience in finding information, to answer their questions and solve problems.
- **We request that faculty attend the sessions.** This sends the message that information skills are important and valued. It also gives faculty the opportunity to become updated on the library's changing resources and to assist students with their research questions.

Resources Guides

available at the ACC Library:

These handouts and brochures are available along the back of the Reference Desk, or by calling Reference and Instruction Librarian Joyce Miller at ext. 485:

- *Research Steps: Using the Library* (brochure)
- *How to Search the Web*
- *Evaluating Web Resources*
- *Finding Information on:*
  - *Botany*
  - *Chemistry*
  - *Companies*
  - *Criminal Justice*
  - *Environmental Sciences*
  - *Ethics and Bioethics*
  - *Literature & Writers*
  - *Nursing & Allied Health*
  - *Photojournalists*
  - *Travel & Tourism*
- *The Hill Collection* (brochure)
- *Library of Congress Classification System*
- *Finding Annual Reports and Company Information on the Web*
- *Finding Travel Information on the Web*
- *Interlibrary Loan Service* (brochure)

Several additional handouts are available along the back of the Reference Desk. New ones are developed throughout the academic year.